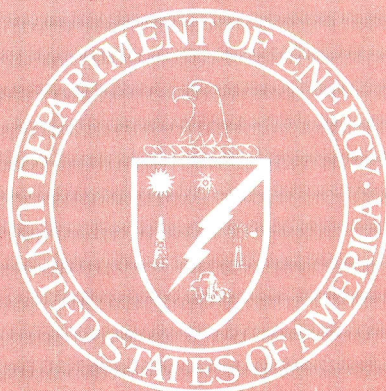


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November 1978

Monthly Energy Review



U.S. Department of Energy
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Feature articles appearing in previous issues:

Energy Consumption—March 1975

Nuclear Power—April 1975

The Price of Crude Oil—June 1975

U.S. Coal Resources and Reserves—July 1975

Propane, A National Energy Resource—
September 1975

Short-Term Energy Supply and Demand
Forecasting at FEA—October 1975

Curtailments of Natural Gas Service—January
1976

Home Heating Conservation Alternatives and the
Solar Collector Industry—March 1976

Trends in United States Petroleum Imports—
September 1976

Crude Oil Entitlements Program—January 1977

Motor Gasoline Supply and Demand—July 1977

Short-Term Petroleum Supply and Demand—
May 1978

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Overview

Domestic consumption of energy during August increased 3.2 percent over August of 1977, and 2.0 percent over July's consumption. For the first 8 months of 1978, domestic consumption was up 2.8 percent from the same period in 1977.

Domestic production of energy during August totaled 5.2 quadrillion Btu (or 28.9 million barrels per day of crude oil equivalent*). August production increased by 2.5 percent from July's production compared to a 4.1 percent increase from July to August of 1977. For the first 8 months of 1978, domestic production of energy was down 0.2 percent from the same period in 1977.

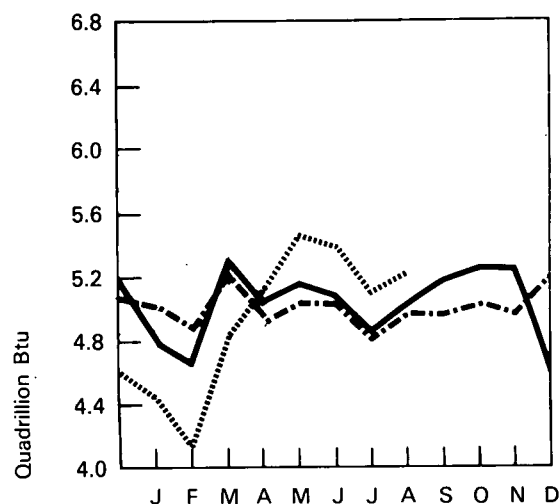
For the third consecutive month, imports of fossil fuels during August totaled 1.5 quadrillion Btu (or 8.4 million barrels per day of crude oil equivalent*). For the first 8 months of 1978, imports of fossil fuels were down 12.2 percent from the same period in 1977 mainly due to the increase in Alaskan oil production and to the drawdown in primary stocks.

For the first 8 months of 1978, domestic consumption of energy exceeded domestic production by 31 percent.

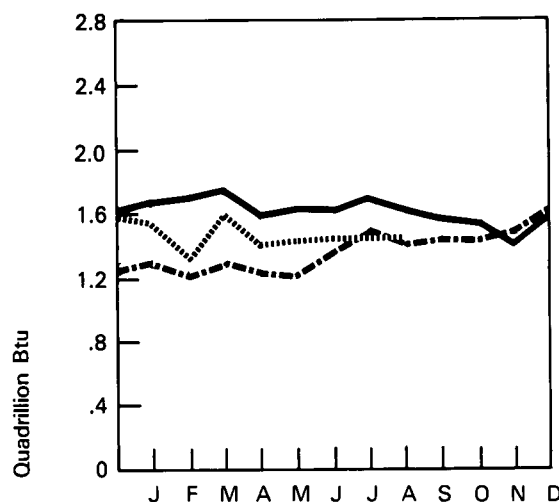
*One barrel of crude oil contains approximately 5.8 million Btu.

		Domestic Production of Energy*	Domestic Consumption of Energy***	Imports of Fossil Fuels**	Exports of Fossil Fuels****
		Quadrillion Btu			
1972	TOTAL	62.798	R71.653	11.328	2.088
1973	TOTAL	62.421	R74.607	14.552	2.026
1974	TOTAL	61.203	R72.731	14.234	2.198
1975	TOTAL	60.014	R70.674	13.962	2.138
1976	January	5.082	7.189	1.307	.134
	February	4.864	6.267	1.225	.130
	March	5.218	6.261	1.301	.148
	April	4.945	5.737	1.249	.203
	May	5.052	5.664	1.232	.193
	June	5.046	5.697	1.394	.222
	July	4.806	5.891	1.507	.183
	August	4.960	5.835	1.425	.164
	September	4.954	5.612	1.472	.196
	October	5.035	6.125	1.462	.201
	November	4.957	6.607	1.504	.214
	December	5.179	7.523	1.623	.180
	TOTAL	60.097	74.409	16.701	2.170
1977	January	4.789	R7.707	R1.698	.100
	February	4.645	R6.527	R1.719	R.128
	March	5.321	R6.421	R1.775	R.137
	April	5.003	R5.849	R1.605	.197
	May	5.150	R5.855	R1.640	R.213
	June	5.067	R5.945	1.633	R.212
	July	4.832	R6.051	R1.714	R.197
	August	5.032	R6.147	R1.636	R.167
	September	5.189	R5.945	R1.585	R.195
	October	5.252	R6.141	1.587	R.180
	November	5.247	R6.356	1.518	R.173
	December	4.616	R7.309	1.606	.162
	TOTAL	60.142	R76.252	R19.718	R2.059
1978	January	4.455	7.556	1.547	.076
	February	4.152	6.910	1.373	R.056
	March	4.866	6.797	1.600	R.063
	April	R5.141	5.990	R1.402	R.133
	May	R5.480	6.148	R1.437	R.183
	June	R5.306	R5.972	R1.454	.222
	July	R5.109	6.217	R1.487	NA
	August	†5.236	6.342	†1.485	NA
	TOTAL	39.745	51.932	11.785	.733
	(Year to date)				

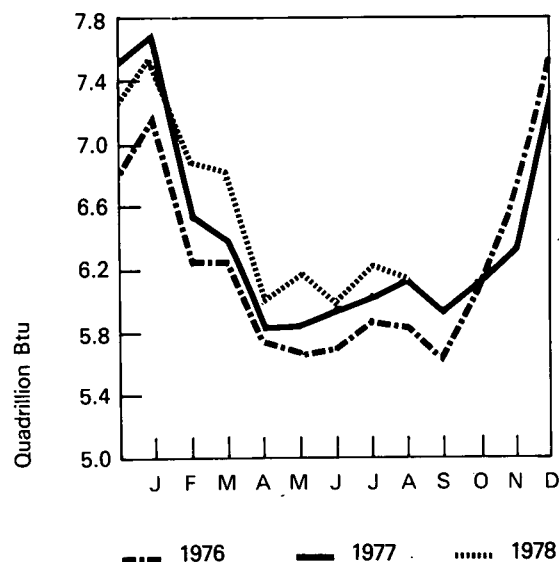
Domestic Production of Energy



Imports of Fossil Fuels



Domestic Consumption of Energy



*See Explanatory Note 1.
 **See Explanatory Note 2.
 ***See Explanatory Note 3.
 ****See Explanatory Note 4.

†Preliminary data.

R=Revised data.
 NA = Not available.

Source: Energy Information Administration (EIA) calculations based on data appearing elsewhere in this publication.

Energy Consumption

Domestic energy consumption in August 1978 was 6.3 quadrillion Btu, 3.2 percent more than in August 1977, and 8.7 percent more than in August 1976. The sectoral breakdown for this August is not yet available.

In July 1978 the combined residential/commercial sector consumed 2.2 quadrillion Btu, 2.5 percent more than in July 1977. Industrial energy consumption for July 1978 was 2.4 quadrillion Btu, 4.3 percent more than in July 1977. Transportation consumption in July 1978 was 1.7 quadrillion Btu, up 1.0 percent from the July 1977 level.

Heating Degree-Days

National average cumulative heating degree-days for the period July 1 through October 29, 1978 were 8.5 percent above normal but 1.5 percent below the level accumulated during the similar period of 1977.

Energy Consumption

Domestic Energy Consumption by Primary Energy Type

		Coal*	Natural Gas (dry)	Petroleum	Hydro-electric Power**	Nuclear Electric Power	Geo-Thermal Power	Total***	Cumulative Total***
Quadrillion (10 ¹⁵) Btu									
1972	TOTAL	R12.434	22.699	32.966	2.946	0.576	0.032	R71.653	
1973	TOTAL	R13.307	22.512	34.852	3.005	0.888	0.043	R74.607	
1974	TOTAL	R12.954	21.732	33.468	3.309	1.215	0.053	R72.731	
1975	TOTAL	R12.856	19.948	32.742	3.219	1.839	0.070	R70.674	
1976	January	1.215	2.337	3.177	0.282	0.172	0.007	7.189	7.189
	February	1.075	1.977	2.791	0.266	0.153	0.007	6.267	13.456
	March	1.115	1.755	2.948	0.287	0.149	0.007	6.261	19.718
	April	1.065	1.538	2.749	0.262	0.117	0.006	5.737	25.455
	May	1.070	1.463	2.722	0.276	0.127	0.006	5.664	31.119
	June	1.111	1.362	2.774	0.276	0.168	0.006	5.697	36.816
	July	1.185	1.399	2.829	0.281	0.189	0.007	5.891	42.707
	August	1.196	1.343	2.835	0.258	0.196	0.007	5.835	48.542
	September	1.096	1.328	2.776	0.222	0.184	0.007	5.612	54.154
	October	1.139	1.653	2.912	0.229	0.185	0.006	6.125	60.279
	November	1.193	1.912	3.107	0.216	0.172	0.005	6.607	66.886
	December	1.292	2.277	3.503	0.221	0.225	0.006	7.523	74.409
	TOTAL	13.751	20.345	35.123	3.075	2.037	0.078	74.409	
1977	January	1.286	R2.455	3.489	0.233	0.236	0.007	R7.707	R7.707
	February	1.140	R1.852	3.143	0.176	0.209	0.006	R6.527	R14.233
	March	1.144	R1.749	3.076	0.224	0.220	0.007	R6.421	R20.654
	April	1.054	R1.468	2.897	0.212	0.212	0.006	R5.849	R26.503
	May	1.120	R1.407	2.890	0.213	0.220	0.006	R5.855	R32.357
	June	1.177	R1.360	2.976	0.197	0.229	0.006	R5.945	R38.303
	July	1.278	R1.351	2.990	0.193	0.233	0.007	R6.051	R44.354
	August	1.247	R1.391	3.068	0.192	0.243	0.006	R6.147	R50.501
	September	1.161	R1.456	2.924	0.189	0.209	0.007	R5.945	R56.446
	October	1.148	R1.548	3.038	0.197	0.203	0.007	R6.141	R62.587
	November	1.147	R1.724	3.040	0.231	0.207	0.007	R6.356	R68.943
	December	1.228	R2.150	3.415	0.255	0.253	0.007	R7.309	R76.252
	TOTAL	14.129	R19.911	36.947	2.513	2.674	0.078	R76.252	
1978	January	1.239	2.400	3.355	0.279	0.275	0.007	7.556	7.556
	February	1.050	2.158	3.212	0.251	0.233	0.006	6.910	14.466
	March	1.008	1.927	3.344	0.275	0.239	0.005	6.797	21.263
	April	1.053	1.543	2.921	0.282	0.187	0.004	5.990	27.253
	May	1.140	1.380	3.089	0.318	0.218	0.004	6.148	33.401
	June	1.191	R1.246	R3.012	0.281	0.236	0.005	R5.972	R39.373
	July	1.278	1.336	3.058	0.273	0.267	0.005	6.217	R45.590
	August	1.312	1.255	3.248	0.248	0.273	0.006	6.342	51.932
	TOTAL (8 months)	9.270	13.246	25.239	2.207	1.929	0.041	51.932	

*Includes bituminous coal, lignite, anthracite coal, and net coke imports.

**Includes utility production, industrial production, and net imports.

***Totals may not equal sum of components due to independent rounding.

R=Revised.

Source: EIA calculations based on data appearing elsewhere in this publication.

Domestic Energy Consumption by Economic Sector*

		Residential/ Commercial	Industrial	Transportation	Total**
Quadrillion (10 ¹⁵) Btu					
1973	TOTAL	R26.552	R29.177	R18.878	R74.607
1974	TOTAL	R25.898	28.572	18.261	R72.731
1975	TOTAL	R26.194	R26.121	18.359	R70.674
1976	January	3.113	2.423	1.653	7.189
	February	2.692	2.112	1.463	6.267
	March	2.435	2.201	1.626	6.261
	April	2.089	2.068	1.580	5.737
	May	1.920	2.191	1.553	5.664
	June	1.869	2.229	1.599	5.697
	July	1.975	2.280	1.637	5.891
	August	1.982	2.262	1.592	5.835
	September	1.844	2.211	1.558	5.612
	October	1.955	2.570	1.600	6.125
	November	2.377	2.588	1.642	6.607
	December	3.010	2.719	1.794	7.523
	TOTAL	27.260	27.854	19.295	74.409
1977	January	3.434	R2.550	R1.723	R7.707
	February	2.978	R1.968	1.580	R6.527
	March	2.508	R2.260	R1.652	R6.421
	April	2.105	R2.118	R1.625	R5.849
	May	1.931	R2.316	R1.608	R5.855
	June	1.976	R2.321	R1.649	R5.945
	July	R2.121	R2.261	1.669	R6.051
	August	2.117	R2.342	R1.689	R6.147
	September	1.964	R2.367	R1.614	R5.945
	October	2.011	R2.480	R1.650	R6.141
	November	2.171	R2.541	R1.645	R6.356
	December	2.838	R2.664	R1.807	R7.309
	TOTAL	R28.153	R28.188	R19.912	R76.252
1978	January	3.292	2.564	1.700	7.556
	February	3.148	2.150	1.612	6.910
	March	2.868	2.154	1.775	6.797
	April	2.245	2.129	1.615	5.990
	May	2.111	2.300	1.738	6.148
	June	R2.029	R2.239	R1.704	R5.972
	July	2.174	2.357	1.686	6.217
	TOTAL (7 months)	17.867	15.893	11.830	45.590

*See Explanatory Note 5 for definitions of the Residential/Commercial, Industrial, and Transportation sectors. The methodology used for sector calculations is provided in the footnotes of the next table.

**Totals may not equal sum of components due to independent rounding.

R=Revised data.

Energy Consumption by Economic Sector and Primary Source—July 1978 [Quadrillion (10¹⁵) Btu]

Sector ¹	Primary Energy Source						Primary Energy Consumption	Electricity Distributed ⁷	Net Energy Consumption	Electrical Energy Loss Distributed ⁸	Ultimate Energy Disposition
	Coal ²	Natural Gas (dry) ³	Petroleum ⁴	Hydroelectric ⁵	Nuclear ⁶	Geothermal					
Residential and Commercial	0.015	0.269	0.564	—	—	—	0.849	0.371	1.221	0.953	2.174
Industrial	0.305	0.681	0.549	0.003	—	—	1.537	0.230	1.767	0.590	2.357
Transportation	negl.	0.035	1.633	—	negl.	—	1.668	0.005	1.673	0.013	1.686
Electric Utilities	0.958	0.350	0.312	0.271	0.267	0.005	2.163	—	—	—	—
TOTAL	1.278	1.336	3.058	0.273	0.267	0.005	6.217	0.606	4.661	1.557	6.217

¹ See Explanatory Note 5 for definitions of the Residential and Commercial, Industrial, Transportation, and Electric Utilities Sectors.

² Data are from the Energy Information Administration. Includes anthracite, bituminous coal and lignite, and net coke imports.

³ Aggregate data and data on utility consumption are from the Energy Information Administration. Data from the American Gas Association are used for the Residential and Commercial Sector, which includes 100 percent of the AGA "Other" category. Natural gas used in transportation, mostly for pipeline use, is estimated to be 3.6 percent of total natural gas consumption less electric utilities. This percentage is derived from 1974, 1975, and 1976 Bureau of Mines data on consumption. The Industrial Sector is then the difference between the total and the sum of the other sectors.

⁴ Aggregate petroleum data and data on oil consumed by electric utilities are from the Energy Infor-

mation Administration. Petroleum consumed in transportation was calculated based on Department of Transportation data as follows: Motor gasoline—100 percent; naphtha jet fuel—100 percent; kerosene jet fuel—97 percent; distillate fuel oil—30.3 percent; residual fuel oil—11.2 percent; all other products—4.7 percent. The remainder is distributed to economic sectors using the following percentage shares, derived from 1974, 1975, and 1976 Bureau of Mines data on consumption: Residential and Commercial—50.7 percent; Industrial—49.3 percent.

⁵ EIA hydroelectric power production plus net imports of electricity. These imports are assumed to be from hydroelectric power sources and are estimated at 0.011 quadrillion Btu per month in 1974, 0.005 quadrillion Btu per month for 1975, and 0.007 quadrillion Btu per month for 1976 and 0.015 quadrillion Btu per month for 1977 and 1978.

⁶ EIA nuclear power production.

⁷ Electricity was distributed using EIA data on kilowatt-hour sales to ultimate customers. Electrical energy consumed by railroads and for street and highway lighting was distributed to the Transportation Sector. All "Other" sales, largely for use in government buildings, were distributed to the Residential and Commercial Sector.

⁸ In generating electricity with nuclear or fossil fuels, approximately 65 percent of the energy is lost in the form of heat. Transmission and distribution losses consume about an additional 3 percent of the energy inputs of the utility industry. In order to fully account for all energy consumed both directly and indirectly (i.e., ultimate energy disposition), the electricity losses are allocated to the final end-use sectors in proportion to their direct kilowatt-hour usage.

Energy Consumption (Continued)

Energy Consumption by the Residential and Commercial Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum ²	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu								
1973	TOTAL	0.295	7.577	7.077	3.445	R8.158	R26.552	
1974	TOTAL	0.297	7.427	6.484	3.424	R8.267	R25.898	
1975	TOTAL	0.253	7.688	6.135	3.538	R8.579	R26.194	
1976	January	0.031	1.254	0.648	0.340	0.840	3.113	3.113
	February	0.019	1.090	0.581	0.315	0.687	2.692	5.806
	March	0.018	0.856	0.571	0.286	0.704	2.435	8.241
	April	0.020	0.671	0.500	0.271	0.627	2.089	10.329
	May	0.016	0.488	0.506	0.265	0.646	1.920	12.249
	July	0.015	0.333	0.488	0.285	0.749	1.869	14.118
	July	0.011	0.281	0.486	0.333	0.862	1.975	16.093
	August	0.015	0.259	0.506	0.347	0.855	1.982	18.074
	September	0.016	0.272	0.518	0.331	0.706	1.844	19.918
	October	0.020	0.395	0.569	0.286	0.685	1.955	21.873
	November	0.025	0.723	0.622	0.288	0.718	2.377	24.250
	December	0.036	1.083	0.730	0.330	0.831	3.010	27.260
	TOTAL	0.243	7.706	6.726	3.676	8.909	27.260	
1977	January	0.035	1.376	0.712	0.367	0.944	3.434	3.434
	February	0.024	1.216	0.674	0.347	0.717	2.978	6.412
	March	0.019	0.845	0.608	0.306	0.731	2.508	8.920
	April	0.020	0.623	0.538	0.278	0.645	2.105	11.025
	May	0.016	0.405	0.529	0.273	0.707	1.931	12.956
	June	0.015	0.315	0.544	0.308	0.794	1.976	14.931
	July	0.014	R0.277	0.503	0.366	R0.960	R2.121	R17.052
	August	0.014	0.256	0.551	0.373	0.923	2.117	R19.169
	September	0.015	0.264	0.551	0.350	0.784	1.964	R21.133
	October	0.018	0.376	0.612	0.306	0.700	2.011	R23.144
	November	0.025	0.552	0.611	0.284	0.699	2.171	R25.315
	December	0.030	0.952	0.685	0.326	0.845	2.838	R28.153
	TOTAL	0.246	R7.456	7.117	R3.883	R9.450	R28.153	
1978	January	0.029	1.257	0.674	0.369	0.961	3.292	3.292
	February	0.029	1.283	0.647	0.361	0.828	3.148	6.440
	March	0.023	1.059	0.637	0.337	0.812	2.868	9.308
	April	0.020	0.697	0.561	0.287	0.680	2.245	11.553
	May	0.018	0.493	0.583	0.279	0.739	2.111	13.664
	June	0.016	0.320	R0.546	0.319	R0.828	R2.029	R15.693
	July	0.015	0.269	0.564	0.371	0.953	2.174	17.867
	TOTAL (7 months)	0.151	5.378	4.212	2.325	5.801	17.867	

(See footnotes on page 9)

Energy Consumption by the Industrial Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum ²	Hydro-electric	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu									
1973	TOTAL	4.362	10.493	6.403	0.035	2.341	R5.543	R29.177	
1974	TOTAL	4.121	10.137	6.305	0.033	2.337	R5.639	R28.572	
1975	TOTAL	R3.813	8.425	5.966	0.032	2.302	R5.583	R26.121	
1976	January	0.315	0.794	0.630	0.003	0.196	0.484	2.423	2.423
	February	0.297	0.618	0.565	0.003	0.198	0.432	2.112	4.535
	March	0.315	0.616	0.556	0.003	0.206	0.506	2.201	6.736
	April	0.313	0.587	0.487	0.003	0.205	0.474	2.068	8.804
	May	0.320	0.658	0.492	0.003	0.209	0.509	2.191	10.995
	June	0.306	0.670	0.475	0.003	0.214	0.562	2.229	13.224
	July	0.306	0.734	0.473	0.003	0.213	0.551	2.280	15.504
	August	0.302	0.709	0.492	0.002	0.218	0.538	2.262	17.766
	September	0.300	0.716	0.504	0.002	0.220	0.469	2.211	19.977
	October	0.320	0.951	0.554	0.003	0.218	0.523	2.570	22.547
	November	0.325	0.905	0.605	0.003	0.215	0.536	2.588	25.135
	December	0.355	0.900	0.710	0.003	0.214	0.538	2.719	27.854
	TOTAL	3.775	8.859	6.540	0.033	2.525	6.123	27.854	
1977	January	0.317	R0.787	0.693	0.003	0.210	0.540	R2.550	R2.550
	February	0.305	R0.372	0.655	0.003	0.206	0.427	R1.968	R4.518
	March	0.323	R0.612	0.591	0.003	0.216	0.515	R2.260	R6.778
	April	0.304	R0.572	0.523	0.003	0.216	0.501	R2.118	R8.897
	May	0.303	R0.694	0.514	0.003	0.223	0.578	R2.316	R11.213
	June	0.295	R0.688	0.529	0.003	0.225	0.581	R2.321	R13.533
	July	0.287	R0.683	0.489	0.003	R0.220	R0.578	R2.261	R15.794
	August	0.275	R0.739	0.536	0.003	0.227	0.562	R2.342	R18.136
	September	0.274	R0.818	0.536	0.003	0.227	0.509	R2.367	R20.503
	October	0.302	R0.835	0.595	0.003	0.227	0.518	R2.480	R22.983
	November	0.298	R0.878	0.594	0.003	0.222	0.546	R2.541	R25.523
	December	0.309	R0.904	0.666	0.003	0.218	0.565	R2.664	R28.188
	TOTAL	3.592	R8.581	6.920	0.036	2.637	R6.421	R28.188	
1978	January	0.285	0.830	0.656	0.003	0.219	0.571	2.564	2.564
	February	0.245	0.589	0.630	0.003	0.208	0.476	2.150	4.714
	March	0.248	0.569	0.619	0.003	0.210	0.505	2.154	6.868
	April	0.286	0.570	0.545	0.003	0.215	0.509	2.129	8.997
	May	0.319	0.580	0.567	0.003	0.228	0.603	2.300	11.297
	June	0.293	R0.564	R0.530	0.003	0.236	R0.612	R2.239	R13.536
	July	0.305	0.681	0.549	0.003	0.230	0.590	2.357	15.893
	TOTAL (7 months)	1.981	4.383	4.095	0.021	1.546	3.867	15.893	

(See footnotes on page 9)

Energy Consumption (Continued)

Energy Consumption by the Transportation Economic Sector¹

		Coal	Natural Gas ⁴ (dry)	Petroleum	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu								
1973	TOTAL	0.009	0.733	17.940	0.058	0.137	R18.878	
1974	TOTAL	0.009	0.656	17.392	0.060	0.145	18.261	
1975	TOTAL	0.001	0.602	17.544	0.062	0.150	18.359	
1976	January	negl.	0.076	1.556	0.006	0.015	1.653	1.653
	February	negl.	0.064	1.382	0.006	0.012	1.463	3.116
	March	negl.	0.055	1.552	0.005	0.013	1.626	4.741
	April	negl.	0.047	1.516	0.005	0.012	1.580	6.322
	May	negl.	0.043	1.493	0.005	0.012	1.553	7.875
	June	negl.	0.037	1.545	0.005	0.012	1.599	9.473
	July	negl.	0.038	1.581	0.005	0.013	1.637	11.110
	August	negl.	0.036	1.538	0.005	0.013	1.592	12.702
	September	negl.	0.037	1.504	0.005	0.011	1.558	14.260
	October	negl.	0.050	1.531	0.006	0.013	1.600	15.859
	November	negl.	0.061	1.561	0.006	0.014	1.642	17.501
	December	negl.	0.074	1.699	0.006	0.015	1.794	19.295
	TOTAL	negl.	0.619	18.457	0.064	0.155	19.295	
1977	January	negl.	R0.081	1.620	0.006	0.016	R1.723	R1.723
	February	negl.	R0.059	1.503	0.006	0.012	1.580	R3.303
	March	negl.	0.054	1.580	0.005	0.012	R1.652	R4.956
	April	negl.	R0.045	1.564	0.005	0.012	R1.625	R6.581
	May	negl.	R0.041	1.549	0.005	0.013	R1.608	R8.189
	June	negl.	0.037	1.594	0.005	0.012	R1.649	R9.838
	July	negl.	R0.036	1.616	0.005	0.013	1.669	R11.507
	August	negl.	R0.037	1.635	0.005	0.012	R1.689	R13.196
	September	negl.	0.040	1.557	0.005	0.011	R1.614	R14.810
	October	negl.	R0.045	1.587	0.005	0.012	R1.650	R16.460
	November	negl.	R0.053	1.571	0.006	0.014	R1.645	R18.105
	December	negl.	R0.069	1.717	0.006	0.015	R1.807	R19.912
	TOTAL	negl.	R0.599	19.094	0.064	0.155	R19.912	
1978	January	negl.	0.078	1.600	0.006	0.016	1.700	1.700
	February	negl.	0.070	1.524	0.006	0.013	1.612	3.312
	March	negl.	0.061	1.696	0.005	0.013	1.775	5.087
	April	negl.	0.047	1.551	0.005	0.012	1.615	6.703
	May	negl.	0.040	1.680	0.005	0.013	1.738	8.440
	June	negl.	R0.033	R1.653	0.005	0.013	R1.704	R10.144
	July	negl.	0.035	1.633	0.005	0.013	1.686	11.830
	TOTAL (7 months)	negl.	0.365	11.335	0.037	0.093	11.830	

¹ See Explanatory Note 5 for definitions of the Residential and Commercial, Industrial, and Transportation Sectors. The methodology used for sector calculations is provided in the footnotes of a previous table. Printed totals may differ slightly from the sum of their row/column components due to independent rounding.

² The percentage share used in calculating Residential and Commercial consumption of petroleum was 52.5 percent for 1973 and 50.7 percent for 1974, 1975, 1976, 1977, and 1978.

³ The percentage share used in calculating Industrial consumption of petroleum was 47.5 percent for 1973 and 49.3 percent for 1974, 1975, 1976, 1977, and 1978.

⁴ The percentage share used in calculating Transportation consumption of natural gas was 3.9 percent for 1973 and 3.6 percent for 1974, 1975, 1976, 1977, and 1978. This percentage share is applied to total natural gas minus electric utility consumption.

R=Revised data.

Heating Degree-Days*

Cumulative July 1, 1978-October 29, 1978

Petroleum Administration For Defense (PAD) Districts	1978	1977**		Normal (1941-70)**	
PAD District I	345.3	331.7	(4.1)	275.4	(25.4)
New England	609.4	472.5	(29.0)	450.7	(35.2)
Conn., Maine, Mass., N.H., R.I., Vt.					
Middle Atlantic	416.5	409.1	(1.8)	331.5	(25.6)
Del., Md., N.J., N.Y., Pa.					
Lower Atlantic	122.6	153.6	(-20.2)	114.1	(7.5)
Fla., Ga., N.C., S.C., Va., W. Va.					
PAD District II	433.1	456.0	(-5.0)	400.8	(8.1)
Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, Okla., S. Dak., Tenn., Wisc.					
PAD District III	66.9	74.7	(-10.4)	70.6	(-5.3)
Ala., Ark., La., Miss., N. Mex., Tex.					
PAD District IV	524.9	487.1	(7.8)	555.9	(-5.6)
Colo., Idaho, Mont., Utah, Wyo.					
PAD District V	193.1	214.5	(-9.9)	272.6	(-29.1)
Ariz., Calif., Nev., Oreg., Wash.					
U.S. AVERAGE	324.1	329.1	(-1.5)	298.7	(8.5)

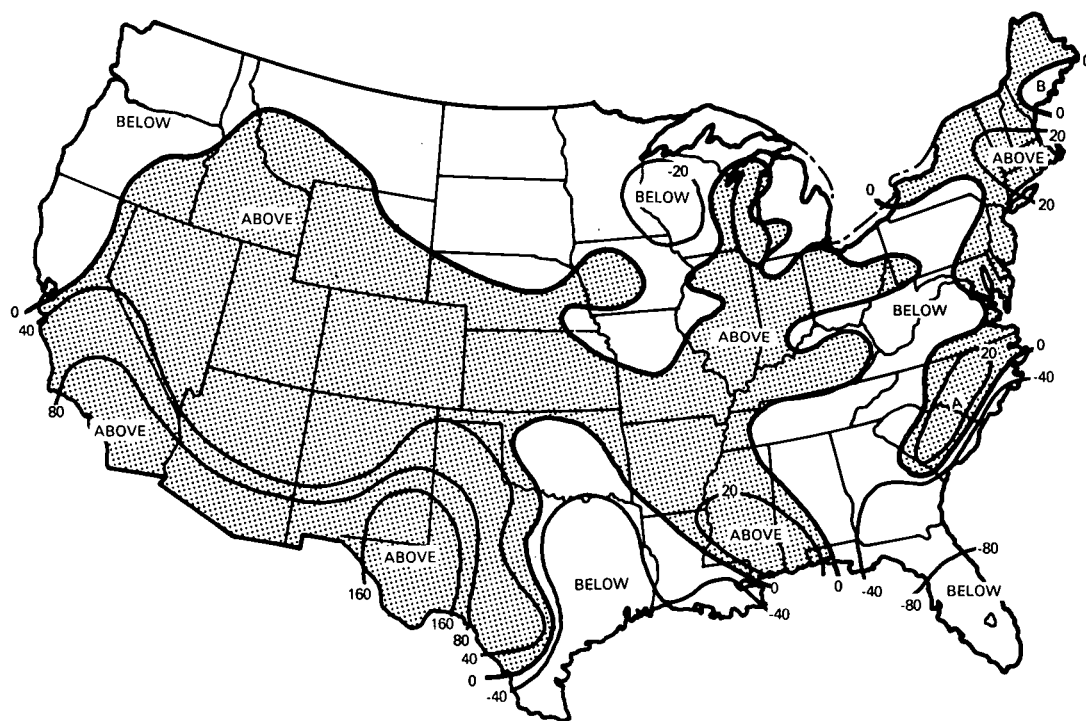
*See Explanatory Note 6 for explanation of degree-days.

**Percentage change in parentheses.

Heating Degree-Days (Continued)

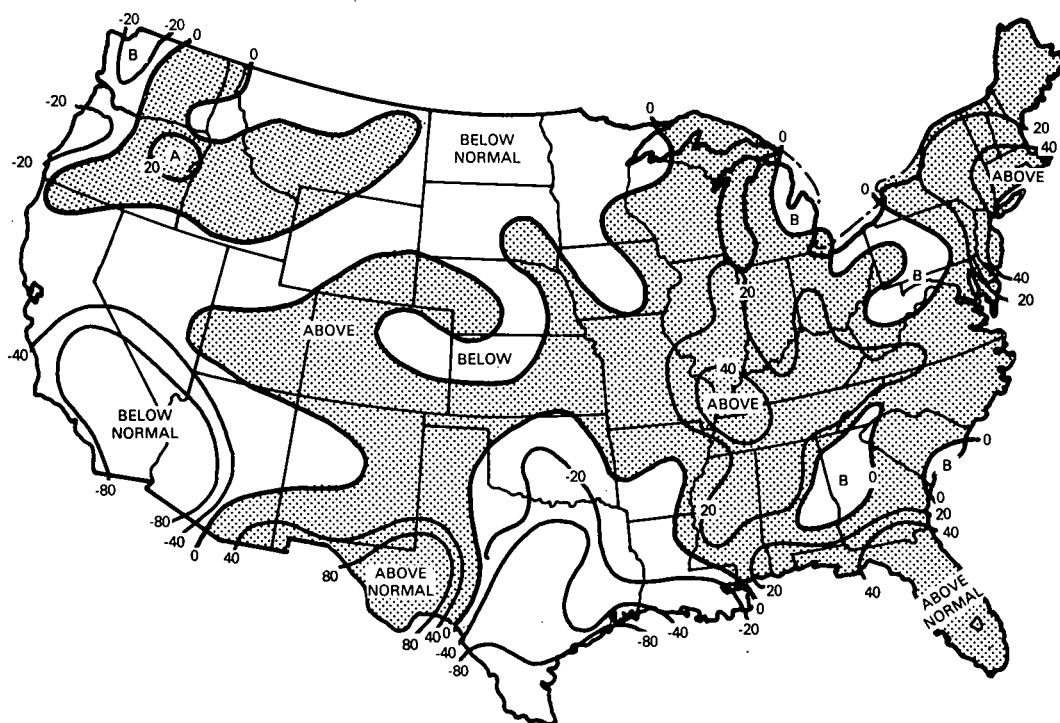
Heating Degree-Days Accumulated from July 1, 1978 through October 29, 1978

Percent Departure from 1977



A Above (normal)
B Below (normal)

Percent Departure from Normal (1941-70)



Note: Above normal heating degree-days correspond to below normal temperatures.

Source: Department of Commerce—NOAA.

Part 3 Crude Oil and Refined Petroleum Products

Crude Oil and Refined Petroleum Products

Total petroleum imports (excluding imports for the Strategic Petroleum Reserve) averaged 8.4 million barrels per day in September 1978,* 2.0 percent less than the September 1977 rate. Imports** averaged 7.8 million barrels per day over the first 9 months of 1978, 12.0 percent less than over the same period of 1977.

Total domestic demand for petroleum products averaged 18.1 million barrels per day in September, 2.2 percent above the rate in September 1977. The major components of domestic demand in September were: motor gasoline (39.9 percent), distillate fuel oil (15.2 percent), and residual fuel oil (15.2 percent). Total domestic demand averaged 18.8 million barrels per day over the first 9 months of 1978, 2.8 percent higher than over the same period of 1977.

Preliminary statistics indicate that motor gasoline demand averaged 7.2 million barrels per day in September 1978, 1.0 percent below the rate of last September. The January through September average was 7.4 million barrels per day, 3.0 percent above the average for the first 9 months of 1977.

Residual fuel oil demand averaged 2.8 million barrels per day in September, 5.7 percent less than a year ago. The average over the January through September period of 1978 was 3.1 million barrels per day, 0.5 percent below the January through September 1977 average. Residual fuel oil stocks measured 78.1 million barrels at the end of September, 10.8 percent below a year ago and 2.2 percent above the level 2 years ago.

Distillate fuel oil demand averaged 2.8 million barrels per day in September, 1.6 percent higher than a year ago. The average for the January through September period of 1978 was 3.4 million barrels per day, 2.7 percent

above the January through September 1977 average. Distillate fuel oil stocks stood at 212.8 million barrels at the end of September, 15.8 percent below the stock level 1 year ago and 8.4 percent below the stock level 2 years ago.

Domestic crude oil production averaged 8.9 million barrels per day in September, 5.2 percent higher than in September 1977. The average for the first 9 months of 1978 was 8.7 million barrels per day, 7.2 percent above the January through September 1977 average.

*September 1978 estimates are based on preliminary data from the American Petroleum Institute and will be revised to conform with data from the EIA Petroleum Reporting System as available.

**Exclude crude petroleum imported for the Strategic Petroleum reserve.

Crude Oil

		Crude Input to Refineries	Domestic Production ¹	Crude Oil Imports ^{1,2}	Strategic Petroleum Reserve (SPR) Imports	Exports	Crude Oil Stocks ^{1,3}	Strategic Petroleum Reserve (SPR) Stocks
		Thousands of barrels per day					Thousands of barrels	
1972	AVERAGE	11,696	9,441	2,216		1	246,395	
1973	AVERAGE	12,431	9,208	3,244		2	242,478	
1974	AVERAGE	12,133	8,774	3,477		3	265,020	
1975	AVERAGE	12,442	8,375	4,105		6	271,354	
1976	January	12,560	8,232	4,594		0	289,296	
	February	12,834	8,231	4,208		0	277,414	
	March	12,877	8,232	4,738		1	283,112	
	April	12,727	8,077	4,790		0	286,628	
	May	12,920	8,125	4,669		0	283,982	
	June	13,799	8,094	5,628		0	281,715	
	July	13,901	8,127	5,792		0	282,599	
	August	13,888	8,111	5,556		12	277,272	
	September	13,716	8,150	5,875		0	284,357	
	October	13,319	8,063	5,689		18	297,683	
	November	14,101	8,080	5,946		30	298,836	
	December	14,333	8,061	5,925		34	285,471	
	AVERAGE	13,416	8,132	5,287		8		
1977	January	14,140	7,790	6,288		13	294,037	
	February	14,740	8,067	6,652		59	291,387	
	March	14,270	8,022	6,633		32	299,464	
	April	14,185	8,079	6,785		17	318,588	
	May	14,605	8,009	6,821		89	328,559	
	June	14,867	8,039	6,997		10	333,635	
	July	14,884	8,040	7,021		53	335,193	
	August	14,645	8,244	6,416		37	338,300	
	September	14,930	8,416	6,429		91	334,180	
	October	14,658	8,508	6,270	93	38	340,517	2,646
	November	14,636	8,513	6,230	73	45	345,098	5,084
	December	14,749	8,423	6,049	79	69	339,813	7,826
	AVERAGE	14,608	8,179	6,548	21	50		
1978	January	14,139	8,347	5,974	114	98	340,082	11,106
	February	13,959	8,373	5,551	109	8	335,794	14,276
	March	14,141	8,807	5,981	132	60	345,333	18,437
	April	13,872	8,708	5,331	108	92	343,201	21,826
	May	14,982	8,801	5,452	133	124	329,020	25,629
	June	R14,685	R8,822	R6,227	146	195	R333,247	30,140
	July	14,937	8,585	5,849	154	NA	323,749	35,248
	August	R15,262	R8,595	R5,934	R184	NA	R308,235	40,968
	September	15,265	8,856	6,504	NA	NA	326,102	NA
	AVERAGE	14,589	8,657	5,869	135	97		
	(Year to date)							

¹See Definitions.

²Excludes SPR imports.

³Excludes SPR stocks.

⁴Total as of December 31.

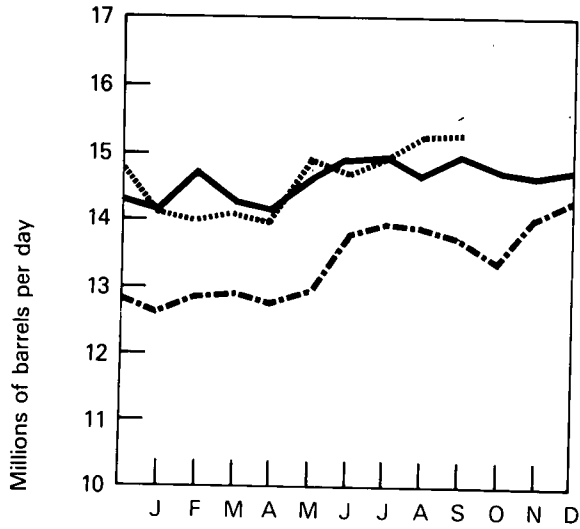
R=Revised data.

NA = Not available.

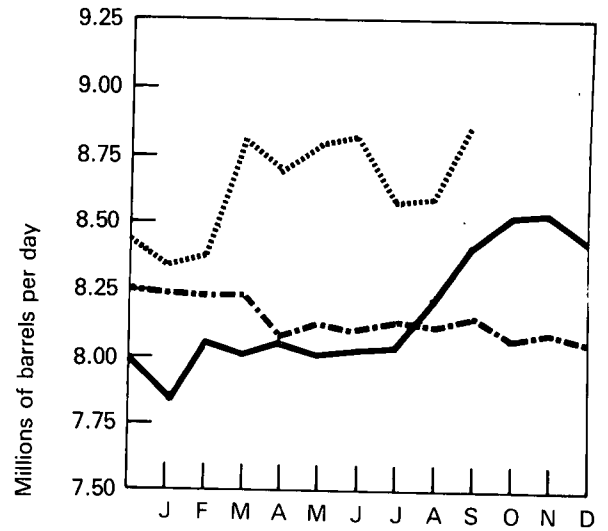
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through June 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" July 1978 and August 1978: EIA "Monthly Petroleum Statistics Report;" September 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Crude Oil

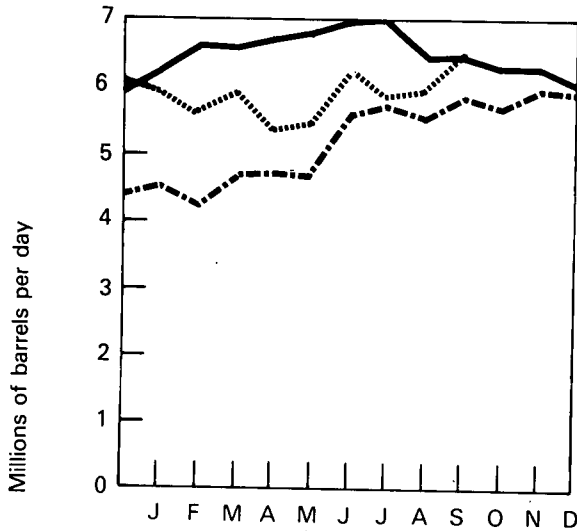
Crude Input to Refineries



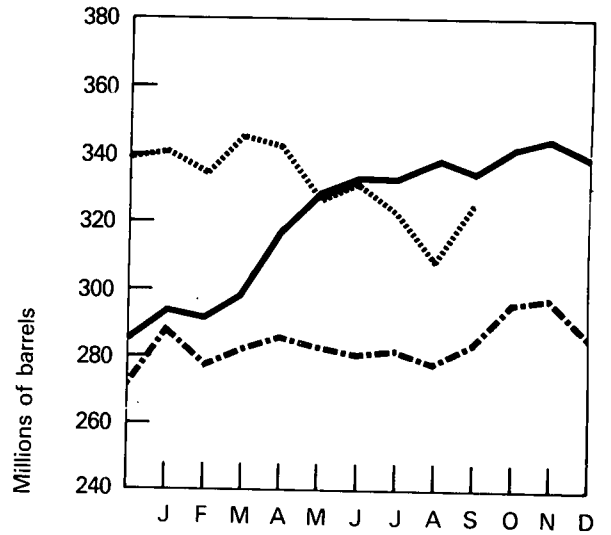
Domestic Production



Imports (Excluding Imports for SPR)



Stocks (Excluding SPR)



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Total Refined Petroleum Products

		Domestic Demand	Imports*	Exports
		Thousands of barrels per day		
1972	AVERAGE	16,367	2,525	222
1973	AVERAGE	17,308	3,012	229
1974	AVERAGE	16,653	2,635	218
1975	AVERAGE	16,322	1,951	204
1976	January	18,647	2,119	156
	February	17,509	2,504	241
	March	17,302	1,949	183
	April	16,672	1,806	222
	May	15,977	1,654	179
	June	16,825	1,847	213
	July	16,607	2,092	242
	August	16,642	1,827	208
	September	16,837	2,050	196
	October	17,090	1,847	180
	November	18,847	2,115	318
	December	20,560	2,522	246
	AVERAGE	17,461	2,026	215
1977	January	20,481	2,594	179
	February	20,427	3,278	175
	March	18,056	2,610	175
	April	17,570	1,886	207
	May	16,960	1,753	199
	June	18,048	1,872	215
	July	17,549	2,021	201
	August	18,009	2,175	193
	September	17,733	2,136	203
	October	17,831	1,862	170
	November	18,440	1,814	190
	December	20,046	2,183	206
	AVERAGE	18,418	2,176	193
1978	January	19,691	2,065	158
	February	20,874	2,337	200
	March	19,627	2,323	209
	April	17,714	2,100	245
	May	18,133	1,762	189
	June	R18,271	R1,624	204
	July	17,949	1,861	NA
	August	R19,062	R1,869	NA
	September	18,128	1,888	NA
	AVERAGE	18,814	1,978	201
	(Year to date)			

Total Petroleum Imports (Crude Oil and Refined Products)

Total Imports (Excluding SPR)	SPR Imports	Total Imports (Including SPR)
Thousands of barrels per day		
4,741		
6,256		
6,112		
6,056		
6,714		
6,712		
6,687		
6,595		
6,323		
7,474		
7,884		
7,382		
7,924		
7,536		
8,060		
8,447		
7,313		
8,882		
9,930		
9,243		
8,671		
8,574		
8,869		
9,042		
8,591		
8,565		
8,132	093	8,225
8,044	73	8,117
8,232	79	8,311
8,724	21	8,744
8,040	114	8,154
7,887	109	7,996
8,304	132	8,436
7,431	108	7,539
7,215	133	7,348
R7,851	146	R7,997
7,710	154	7,864
R7,803	184	R7,987
8,392	NA	NA
7,847	135	7,915

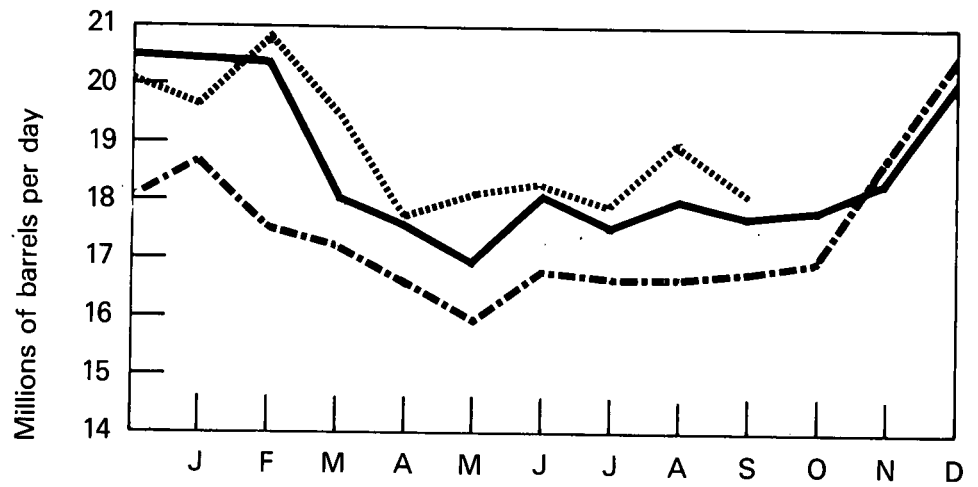
*See Definitions.

R=Revised data.

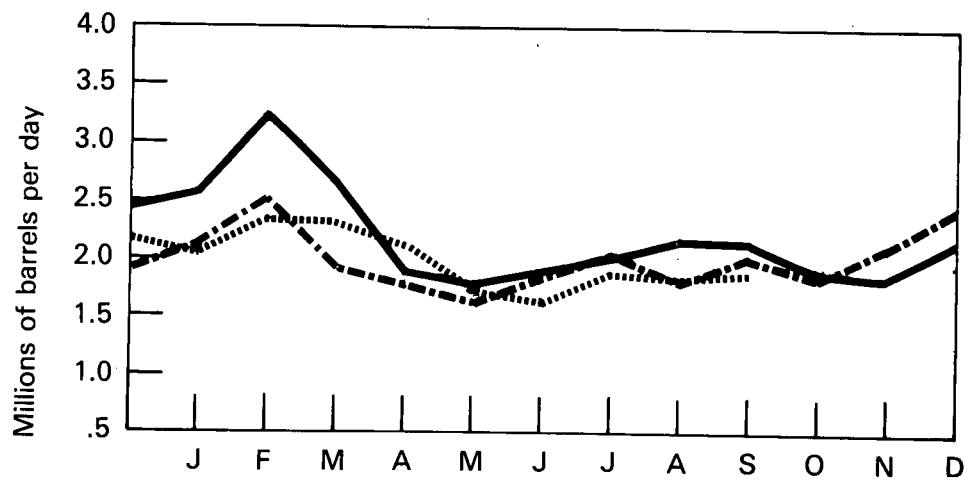
NA=Not available.

Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through June 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" July 1978 and August 1978: EIA "Monthly Petroleum Statistics Report;" September 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

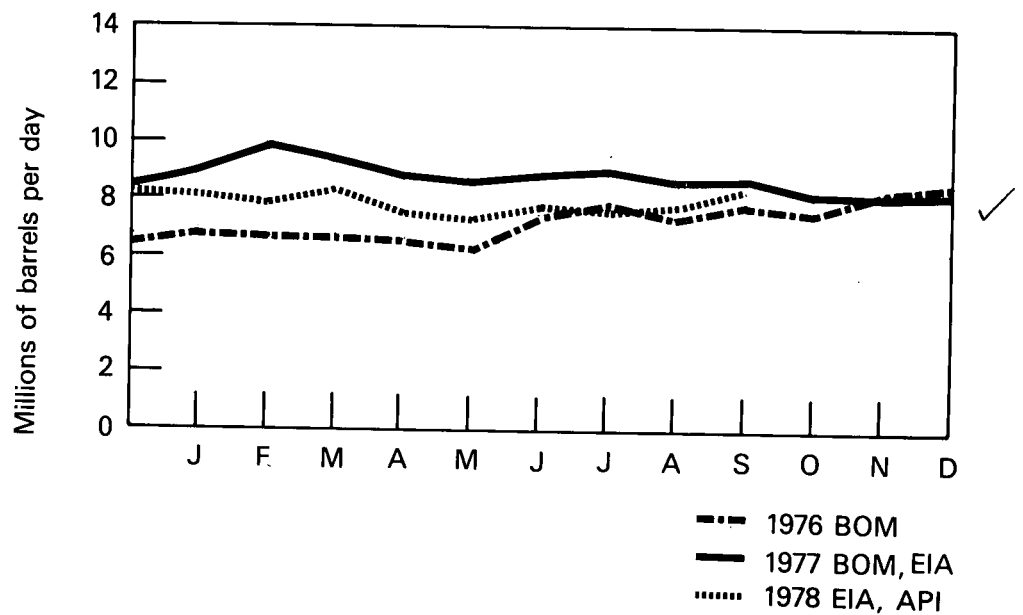
Total Refined Product Domestic Demand



Refined Product Imports



Total Petroleum Imports (Excluding Imports for SPR)



Direct U.S. Petroleum Imports from OPEC Countries

	Algeria	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	United Arab Emirates	Venezuela	Other OPEC*	Total OPEC	Arab Members of OPEC
Thousands of barrels per day											
1973	134.2	212.7	222.7	164.3	458.9	487.3	70.6	1,124.7	106.5	2,981.9	914.4
1974	190.2	300.1	468.8	4.4	697.6	460.6	70.5	979.3	88.3	3,259.8	748.5
1975	281.5	388.4	280.4	232.0	761.5	715.0	116.7	697.6	116.1	3,589.2	1,381.3
1976	428.3	537.4	298.5	453.3	1,025.2	1,229.8	255.2	699.2	134.0	5,060.9	2,421.0
1977											
January	493.0	619.2	396.8	627.0	1,285.8	1,328.0	319.5	841.8	324.2	6,236.0	3,000.0
February	666.1	570.3	412.4	638.0	1,265.1	1,441.8	316.7	920.6	241.0	6,472.0	3,141.1
March	459.8	567.0	735.0	701.2	1,300.0	1,371.6	369.5	664.3	184.3	6,352.7	3,022.1
April	660.7	523.9	517.2	782.9	1,242.4	1,437.4	323.5	663.3	250.5	6,401.8	3,363.2
May	392.8	512.7	539.3	784.1	1,072.3	1,724.1	237.1	534.4	435.9	6,232.7	3,451.3
June	436.6	671.6	553.0	827.1	1,190.8	1,432.7	438.6	668.7	343.5	6,562.6	3,374.1
July	573.9	519.0	857.3	763.4	1,194.7	1,369.8	286.1	652.8	350.8	6,567.8	3,232.1
August	632.2	552.8	500.1	640.0	960.5	1,449.4	308.6	744.4	276.9	6,064.9	3,169.8
September	550.8	391.0	448.9	679.2	1,084.8	1,487.4	348.4	744.8	201.0	5,936.3	3,215.1
October	626.2	461.0	413.0	690.5	1,104.2	1,303.3	246.9	586.7	272.0	5,703.9	2,998.1
November	590.6	514.6	422.7	840.1	943.0	1,119.2	420.1	515.1	285.0	5,650.4	3,162.5
December	553.0	492.7	549.0	604.4	987.2	1,064.8	390.5	724.2	289.1	5,654.9	2,835.4
TOTAL	552.0	532.8	530.2	714.7	1,135.1	1,377.0	333.4	687.0	288.3	6,150.5	3,162.7
1978											
January	682.3	462.7	681.5	559.9	822.9	1,198.2	348.7	628.4	227.9	5,612.5	2,925.1
February	635.9	393.5	526.2	575.8	758.4	982.4	485.8	750.5	242.3	5,350.8	2,792.3
March	709.5	579.4	547.3	589.9	944.8	1,125.6	296.2	893.6	240.6	5,926.9	2,884.0
April	597.6	504.7	408.6	601.8	584.3	986.6	435.0	641.9	220.2	4,980.7	2,732.1
May	667.1	508.5	730.4	498.7	790.2	786.3	404.5	527.6	84.5	4,997.8	2,396.8
June	R756.6	R637.1	508.5	630.3	851.7	1,111.3	342.7	R481.1	R235.4	R5,554.7	R3,004.8
July	642.7	574.6	532.5	591.1	928.0	995.6	289.5	508.4	285.5	5,347.9	2,700.6
August	453.5	532.7	559.4	776.4	861.5	1,088.4	404.2	488.6	206.6	5,371.3	2,842.2
TOTAL (8 months)	643.0	525.4	563.1	603.2	819.3	1,034.8	374.4	613.8	217.5	5,394.5	2,784.0

*Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

R=Revised data.

Sources: Direct Imports—Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly" and "PAD District Supply/Demand, Monthly" through April 1977; EIA *Energy Data Reports*, "PAD Districts Supply/Demand, Monthly" for May 1977 through June 1978; EIA "Monthly Petroleum Statistics Report" for July 1978 and August 1978.

U.S. Petroleum Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Puerto Rico	Trinidad and Tobago	Virgin Islands	Other	Total
Thousands of barrels per day									
1973	170.8	1,312.9	15.2	573.6	99.3	250.6	329.2	523.5	3,274.2
1974	159.3	1,067.6	8.4	509.6	90.4	241.2	391.7	384.2	2,852.4
1975	152.0	845.2	71.4	323.6	89.7	240.9	406.5	306.1	2,435.4
1976									
January	134.1	681.7	58.7	291.7	71.0	343.2	468.4	321.5	2,370.3
February	127.6	644.9	70.0	262.4	122.2	326.3	462.3	251.7	2,267.4
March	90.4	590.2	108.0	328.7	114.0	315.6	424.5	367.5	2,338.9
April	131.9	578.4	112.0	274.9	68.5	291.9	341.2	404.5	2,203.3
May	95.2	614.9	89.3	214.1	70.6	257.5	388.5	316.4	2,046.5
June	104.2	653.3	79.5	190.4	54.3	319.3	427.5	373.5	2,202.0
July	112.8	581.7	79.4	259.1	77.9	279.2	386.5	434.0	2,210.6
August	98.5	580.9	88.1	268.7	81.5	163.6	437.2	428.5	2,147.0
September	143.1	564.8	84.8	273.3	104.1	182.6	408.5	453.1	2,214.3
October	78.3	562.0	79.2	239.0	92.2	215.2	460.5	422.8	2,149.2
November	140.4	561.8	132.1	267.6	104.1	254.3	454.4	333.2	2,247.9
December	141.5	578.3	65.5	400.3	98.5	324.2	408.4	405.0	2,421.3
TOTAL	116.5	599.3	87.1	274.6	88.1	272.6	422.3	373.5	2,234.0
1977									
January	170.0	505.9	97.9	304.1	82.5	316.2	619.6	549.8	2,646.0
February	289.5	605.1	168.1	406.6	86.3	406.3	548.8	947.8	3,458.5
March	200.4	561.7	171.5	257.3	97.4	286.5	505.5	810.4	2,890.7
April	130.7	506.1	155.2	110.1	85.3	210.5	409.0	662.4	2,269.3
May	138.5	437.8	173.6	153.7	105.8	308.1	376.2	647.6	2,341.3
June	137.7	493.0	180.7	196.2	89.4	271.1	322.0	616.0	2,306.1
July	169.8	482.9	158.7	239.0	129.7	275.8	477.7	540.1	2,473.7
August	168.8	501.5	213.6	224.5	88.4	281.2	461.6	586.9	2,526.5
September	140.2	528.5	167.6	201.1	156.7	250.9	433.9	750.1	2,629.0
October	122.3	487.0	246.6	197.4	114.1	288.4	451.9	612.9	2,520.6
November	184.4	504.6	230.7	93.3	98.7	237.2	462.8	654.7	2,466.4
December	159.8	580.1	186.5	191.9	97.8	305.5	555.6	579.2	2,656.4
TOTAL	166.9	515.5	179.3	213.7	105.3	286.0	466.2	660.7	2,593.6
1978									
January	167.5	479.7	236.4	215.2	98.0	295.0	466.0	583.3	2,541.1
February	217.6	507.5	221.9	225.2	99.6	295.8	490.6	587.2	2,645.4
March	211.5	436.9	230.9	238.1	63.6	274.2	492.8	560.8	2,508.8
April	140.9	392.4	231.4	258.3	95.0	302.1	371.9	766.7	2,558.7
May	194.3	396.0	257.6	230.6	73.6	189.0	304.0	704.6	2,349.7
June	R144.6	R472.6	287.1	R213.3	R117.6	R199.3	324.5	R683.7	R2,442.7
July	169.8	441.2	319.5	201.6	93.8	281.4	402.2	606.2	2,515.7
August	127.7	440.4	366.5	284.4	82.3	220.6	431.0	477.8	2,492.7
TOTAL (8 months)	179.1	445.2	269.6	233.4	90.2	256.7	409.9	621.1	2,505.2

R=Revised data.

Source: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly" and "PAD Districts Supply/Demand, Monthly," through April 1977; EIA *Energy Data Reports*, "PAD Districts Supply/Demand Monthly" for May 1977 through June 1978; and EIA "Monthly Petroleum Statistics Report" for July 1978 and August 1978.

Motor Gasoline

		Domestic Demand			Production*	Imports	Exports	Stocks*
		Total	Unleaded	Unleaded Percent of Total				
		Thousands of barrels per day					Thousands of barrels	
1972	AVERAGE	6,376	NA	NA	6,281	68	1	**212,770
1973	AVERAGE	6,674	NA	NA	6,527	134	4	**209,395
1974	AVERAGE	6,537	NA	NA	6,358	204	2	**218,346
1975	AVERAGE	6,675	NA	NA	6,518	184	2	**234,925
1976	January	6,398	NA	NA	6,483	92	0	240,464
	February	6,263	1,117	17.8	6,473	84	6	248,854
	March	6,890	1,456	21.1	6,455	123	6	239,049
	April	7,159	1,312	18.3	6,562	99	8	223,965
	May	6,853	1,393	20.3	6,775	112	1	225,037
	June	7,482	1,549	20.7	7,303	188	0	225,365
	July	7,315	1,594	21.8	7,174	190	1	226,922
	August	7,168	1,553	21.7	7,149	141	7	230,578
	September	7,079	1,628	23.0	6,878	171	0	229,751
	October	6,929	1,552	22.4	6,678	138	0	226,300
	November	7,038	1,604	22.8	6,938	146	1	227,742
	December	7,138	1,797	25.2	7,176	84	7	231,387
		AVERAGE	6,978	1,508	21.6	6,838	131	3
1977	January	6,466	1,549	24.0	6,934	222	8	252,608
	February	6,897	1,773	25.7	6,817	184	2	255,519
	March	6,899	1,657	24.0	6,864	245	0	262,118
	April	7,348	1,863	25.4	6,968	269	1	258,831
	May	7,034	1,803	25.6	6,950	202	2	262,498
	June	7,595	2,142	28.2	7,145	246	1	256,389
	July	7,441	2,146	28.8	7,248	248	1	258,152
	August	7,419	2,096	28.3	7,191	187	1	256,904
	September	7,317	2,080	28.4	7,062	220	1	255,859
	October	7,132	2,135	29.9	6,932	179	1	255,194
	November	7,191	2,060	28.6	7,123	179	2	258,537
	December	7,373	2,400	32.6	7,146	196	1	257,578
		AVERAGE	7,176	1,976	27.5	7,033	215	2
1978	January	6,670	2,097	31.4	6,932	211	1	272,287
	February	6,884	2,162	31.4	6,630	210	1	271,077
	March	7,256	2,425	33.4	6,750	142	1	259,801
	April	7,206	2,391	33.2	6,668	180	1	249,079
	May	7,732	2,343	30.3	7,059	174	2	233,612
	June	R7,917	2,697	34.1	R7,213	238	1	R219,660
	July	7,577	2,629	34.7	7,268	210	NA	216,337
	August	R7,850	2,834	36.1	R7,425	R165	NA	R208,529
	September	7,242	NA	NA	7,301	276	NA	220,281
		AVERAGE (Year to date)	7,375	2,450	33.1	7,031	200	1

*See Definitions.

**Total as of December 31.

Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

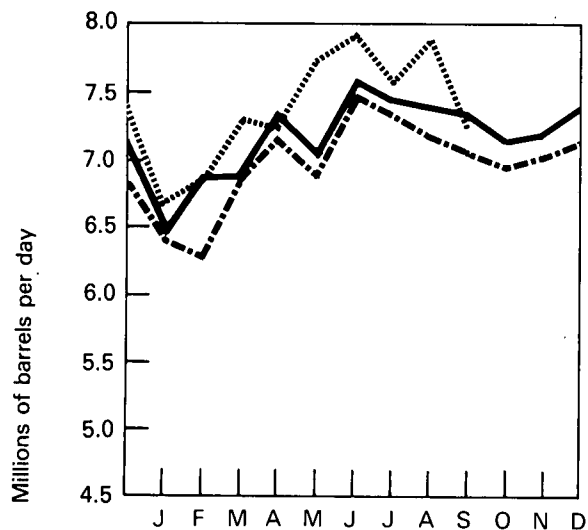
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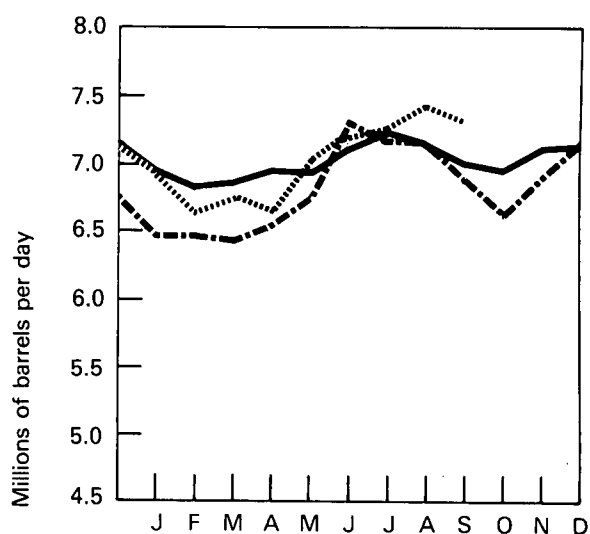
Sources: Data other than unleaded—1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum, Statement, Monthly;" May 1977 through June 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" July 1978 and August 1978: "Monthly Petroleum Statistics Report;" September 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin." Unleaded data—EIA Petroleum Reporting System.

Motor Gasoline

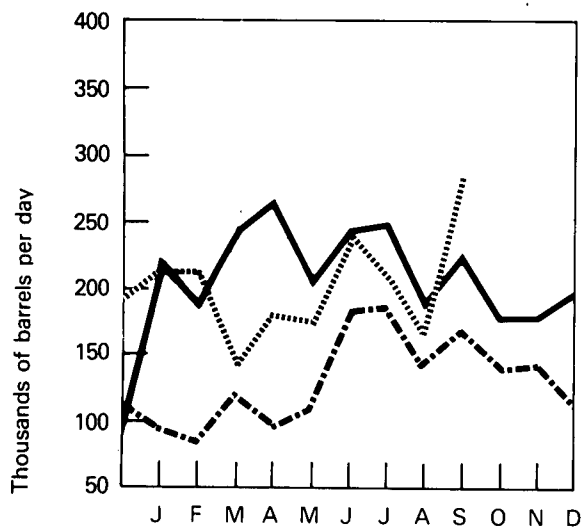
Domestic Demand



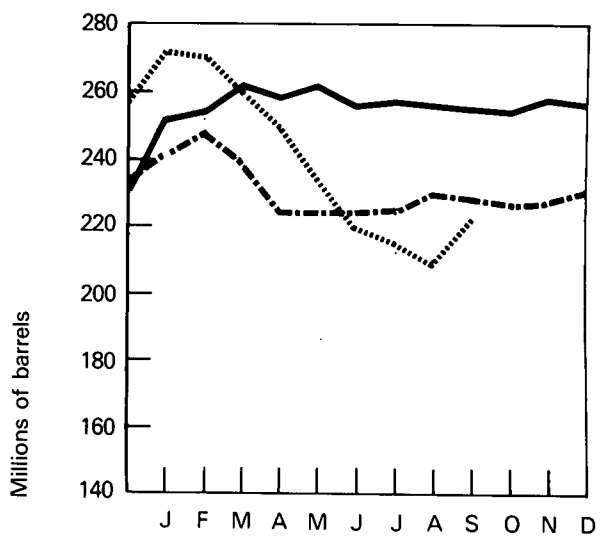
Production



Imports



Stocks



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Jet Fuel

		Domestic Demand	Production	Imports	Exports	Stocks
		Thousands of barrels per day				Thousands of barrels
1972	AVERAGE	1,045	847	194	3	*25,493
1973	AVERAGE	1,059	859	212	4	*28,544
1974	AVERAGE	993	836	163	3	*29,435
1975	AVERAGE	1,001	871	133	2	*30,380
1976	January	948	889	69	3	30,618
	February	965	918	71	4	31,180
	March	965	927	86	2	32,619
	April	1,010	927	108	2	33,332
	May	960	899	106	1	34,664
	June	972	879	68	1	33,879
	July	1,099	933	130	2	32,732
	August	965	942	38	2	33,121
	September	1,048	990	63	2	33,204
	October	911	890	50	2	34,032
	November	978	920	56	3	33,859
	December	1,027	900	72	2	32,085
	AVERAGE	987	918	76	2	
1977	January	1,054	917	77	2	30,170
	February	1,036	974	74	2	30,455
	March	1,041	954	98	2	30,739
	April	1,019	991	86	4	32,355
	May	993	979	57	2	33,644
	June	989	996	30	1	34,707
	July	1,043	969	85	1	35,048
	August	1,113	1,009	71	1	33,986
	September	1,050	1,004	53	2	34,159
	October	1,016	973	67	2	34,861
	November	1,038	950	107	1	35,409
	December	1,089	978	85	2	34,568
	AVERAGE	1,040	974	74	2	
1978	January	980	922	60	1	34,603
	February	1,107	994	69	2	33,332
	March	1,112	972	98	2	32,003
	April	1,014	983	119	1	34,626
	May	995	1,014	108	2	38,514
	June	R1,055	R960	R59	2	R37,408
	July	981	928	72	NA	37,947
	August	R1,130	R969	R85	NA	R35,527
	September	1,130	1,034	78	NA	34,679
	AVERAGE	1,055	975	83	2	
(Year to date)						

*Total as of December 31.

Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

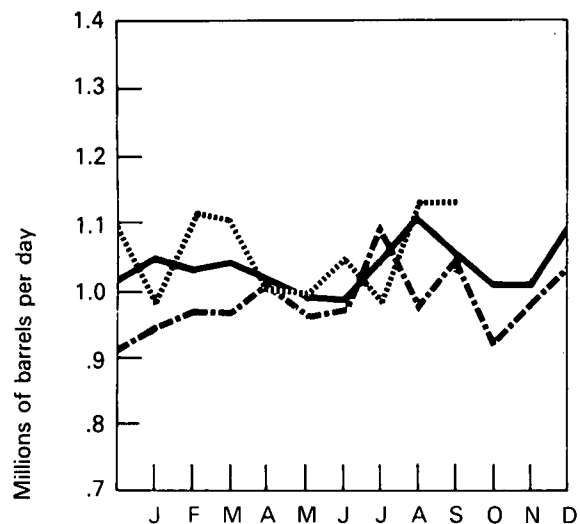
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NA=Not available.

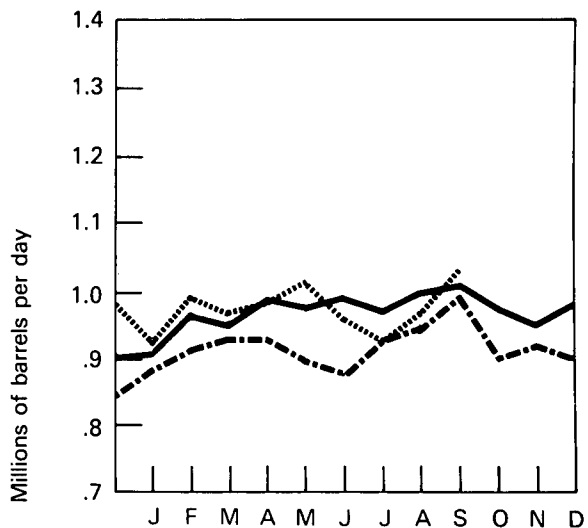
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through June 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" July 1978 and August 1978: EIA "Monthly Petroleum Statistics Report;" September 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Jet Fuel

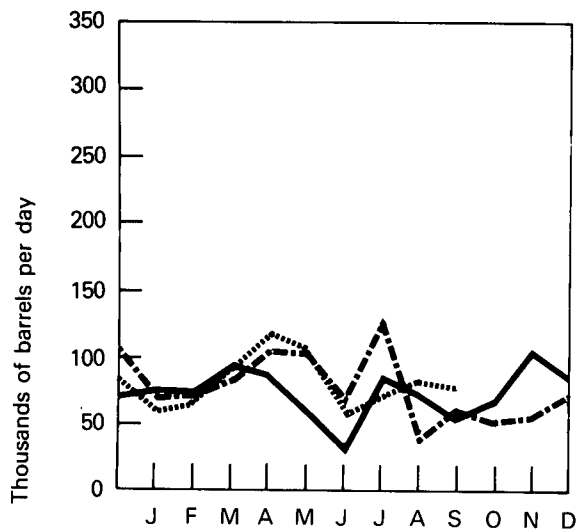
Domestic Demand



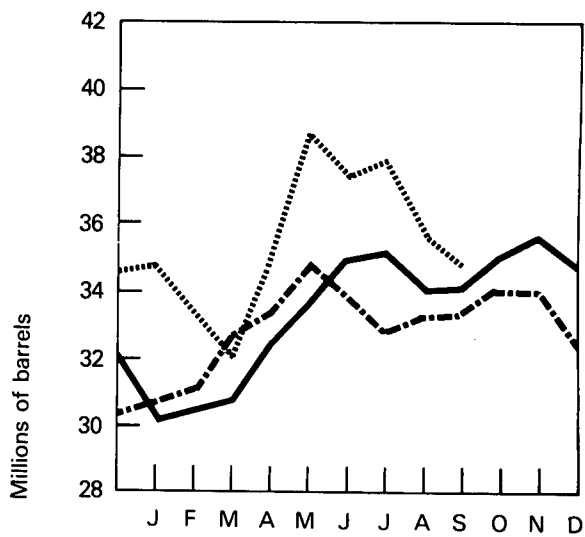
Production



Imports



Stocks



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Distillate Fuel Oil

		Domestic Demand	Production*	Imports	Exports	Stocks*
		Thousands of barrels per day				Thousands of barrels
1972	AVERAGE	2,913	2,630	182	3	**154,284
1973	AVERAGE	3,092	2,820	392	9	**196,421
1974	AVERAGE	2,948	2,668	289	2	**200,029
1975	AVERAGE	2,851	2,653	155	1	**208,787
1976	January	4,297	2,734	163	0	165,428
	February	3,697	2,961	218	1	150,439
	March	3,339	2,793	153	1	138,306
	April	2,788	2,655	96	1	137,249
	May	2,519	2,738	97	1	147,057
	June	2,436	2,885	151	1	165,064
	July	2,255	2,959	126	0	190,861
	August	2,237	2,982	131	4	217,930
	September	2,620	2,947	149	1	232,230
	October	3,031	2,995	144	1	235,599
	November	3,714	3,180	135	1	223,648
	December	4,667	3,255	196	1	185,948
	AVERAGE	3,133	2,924	146	1	
1977	January	5,111	3,375	350	1	142,989
	February	4,714	3,702	664	1	133,261
	March	3,421	3,179	519	1	141,882
	April	2,942	3,001	153	3	148,246
	May	2,777	3,124	99	0	162,123
	June	2,776	3,198	135	0	178,842
	July	2,545	3,192	192	0	204,899
	August	2,635	3,274	161	0	229,757
	September	2,717	3,314	169	1	252,783
	October	3,038	3,363	150	5	267,392
	November	3,420	3,339	188	3	270,571
	December	4,205	3,324	226	2	250,280
	AVERAGE	3,352	3,279	248	1	
1978	January	4,439	3,054	194	1	213,411
	February	4,831	2,937	209	16	165,830
	March	4,089	2,999	187	0	137,877
	April	3,092	2,941	100	6	136,240
	May	3,044	3,208	119	1	145,046
	June	R2,837	R3,105	146	0	R157,515
	July	2,605	3,152	144	NA	178,934
	August	R2,755	R3,252	R147	NA	R200,253
	September	2,760	3,219	133	NA	212,820
	AVERAGE (Year to date)	3,373	3,098	153	4	

*See Definitions.

**Total as of December 31.

Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

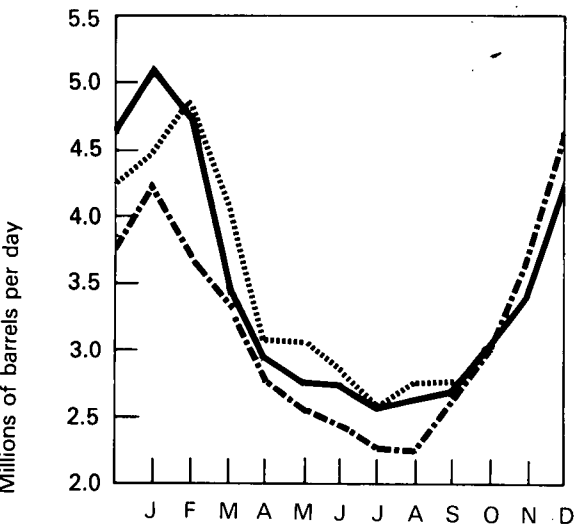
R=Revised data.

NA=Not available.

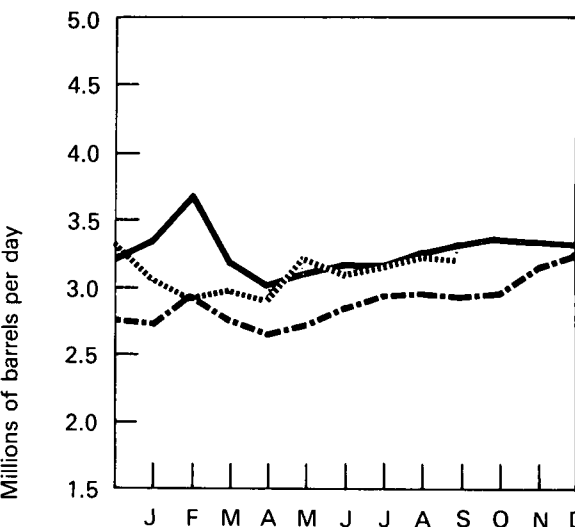
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through June 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" July 1978 and August 1978: EIA "Monthly Petroleum Statistics Report;" September 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Distillate Fuel Oil

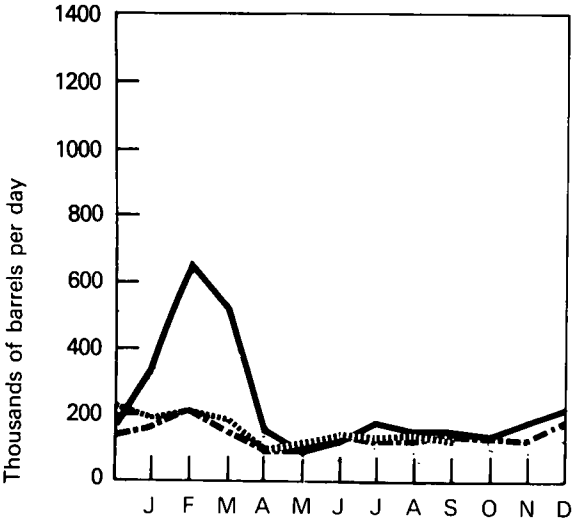
Domestic Demand



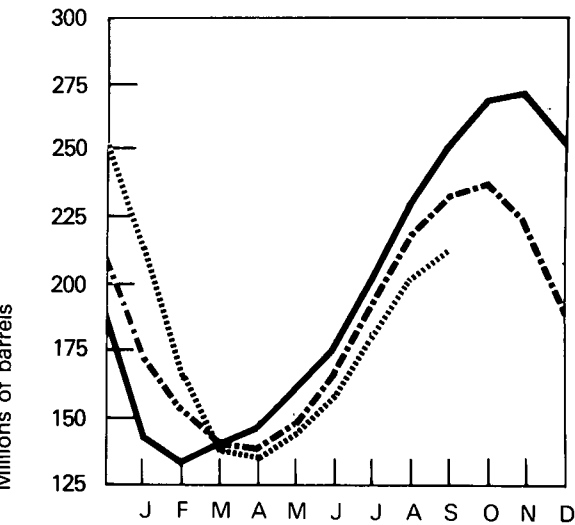
Production



Imports



Stocks



--- 1976 BOM
— 1977 BOM, EIA
..... 1978 EIA, API

Residual Fuel Oil

		Domestic Demand	Production	Imports	Exports	Stocks
		Thousands of barrels per day				Thousands of barrels
1972	AVERAGE	2,529	799	1,742	33	*55,216
1973	AVERAGE	2,822	971	1,853	23	*53,480
1974	AVERAGE	2,639	1,070	1,587	14	*59,694
1975	AVERAGE	2,462	1,235	1,223	15	*74,126
1976	January	3,118	1,415	1,455	13	66,592
	February	3,077	1,394	1,774	30	68,859
	March	2,779	1,311	1,342	10	65,132
	April	2,496	1,283	1,258	18	66,458
	May	2,439	1,257	1,134	10	65,147
	June	2,509	1,241	1,229	7	64,272
	July	2,548	1,266	1,455	11	69,812
	August	2,678	1,321	1,307	8	68,490
	September	2,526	1,330	1,452	8	76,436
	October	2,547	1,351	1,270	5	79,117
	November	3,253	1,581	1,474	16	73,284
	December	3,645	1,772	1,828	4	72,344
	AVERAGE	2,801	1,377	1,413	12	
1977	January	3,741	1,889	1,596	2	64,749
	February	3,662	1,951	1,943	8	71,414
	March	3,150	1,715	1,417	3	71,186
	April	2,855	1,687	1,125	3	70,165
	May	2,719	1,671	1,145	5	73,376
	June	2,954	1,714	1,181	2	71,924
	July	2,805	1,729	1,271	18	77,770
	August	3,046	1,634	1,441	9	78,762
	September	2,926	1,750	1,458	3	87,522
	October	2,707	1,749	1,218	2	95,896
	November	2,819	1,695	1,094	7	95,155
	December	3,364	1,839	1,348	12	89,673
	AVERAGE	3,059	1,751	1,350	6	
1978	January	3,496	1,872	1,358	13	81,434
	February	3,964	1,801	1,565	10	64,852
	March	3,536	1,758	1,700	22	62,187
	April	2,992	1,554	1,565	7	66,229
	May	2,667	1,646	1,221	16	72,359
	June	R2,618	R1,582	R1,012	4	R71,916
	July	2,777	1,615	1,286	NA	75,066
	August	R2,941	R1,681	R1,264	NA	R73,952
	September	2,760	1,681	1,264	NA	78,095
	AVERAGE (Year to date)	3,077	1,681	1,358	12	

*Total as of December 31.

Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

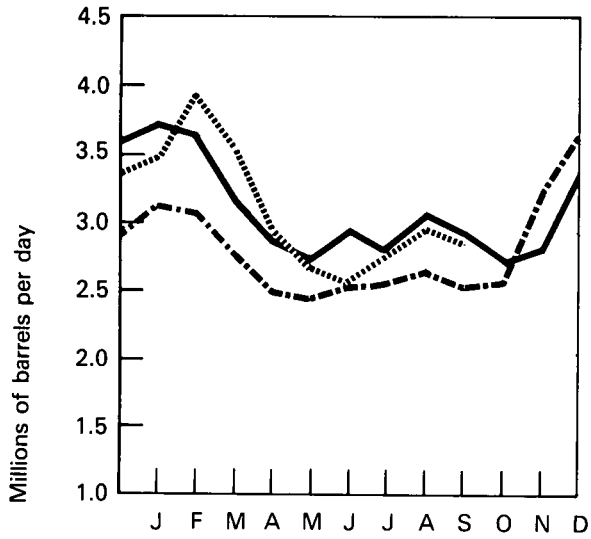
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NA=Not available.

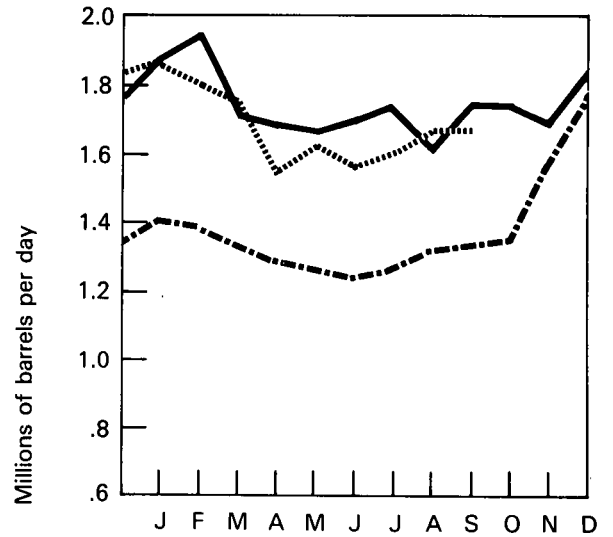
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through June 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" July and August 1978: EIA "Monthly Petroleum Statistics Report;" September 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Residual Fuel Oil

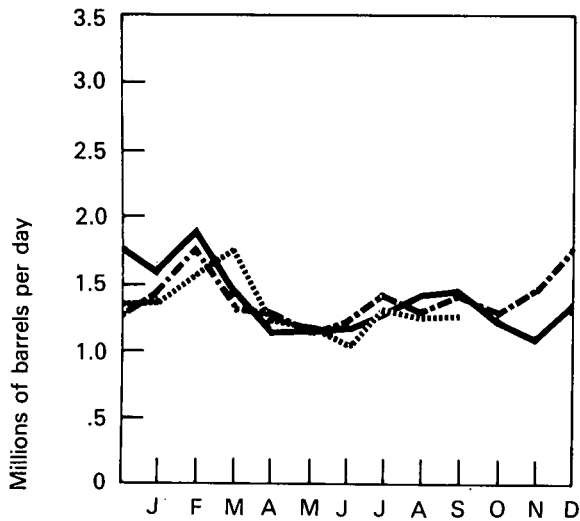
Domestic Demand



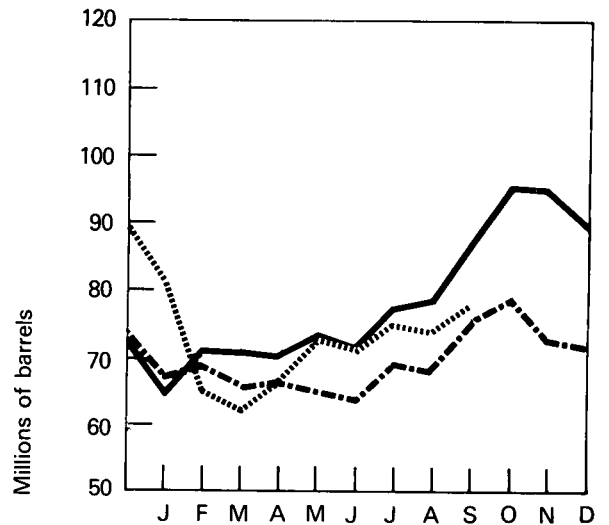
Production



Imports



Stocks



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Natural Gas Liquids

		Domestic Demand*	Production*		Used at Refineries*	Imports	Stocks*
			At processing plants	At refineries			Thousands of barrels
		Thousands of barrels per day					
1972	AVERAGE	1,420	1,744	365	826	174	**92,024
1973	AVERAGE	1,454	1,738	375	815	239	**106,659
1974	AVERAGE	1,422	1,688	338	746	212	**120,175
1975	AVERAGE	1,352	1,633	311	710	185	**132,653
1976	January	1,885	1,585	305	728	240	116,707
	February	1,518	1,640	316	793	270	113,373
	March	1,303	1,615	333	674	194	117,486
	April	1,201	1,616	349	716	171	123,100
	May	1,138	1,581	376	673	144	131,421
	June	1,110	1,606	356	718	163	139,291
	July	1,103	1,592	354	710	147	147,034
	August	1,213	1,596	362	695	160	152,704
	September	1,243	1,602	352	713	152	156,436
	October	1,497	1,601	309	709	203	152,666
	November	1,747	1,615	331	726	244	143,422
	December	1,921	1,589	341	853	269	124,518
	AVERAGE	1,407	1,603	340	725	196	
1977	January	2,018	1,549	323	730	331	106,524
	February	1,887	1,589	336	693	238	94,128
	March	1,354	1,687	331	688	239	100,025
	April	1,228	1,664	337	672	198	108,235
	May	1,167	1,620	397	614	165	120,018
	June	1,235	1,616	364	622	203	129,315
	July	1,133	1,609	381	594	157	141,631
	August	1,181	1,593	360	659	204	150,830
	September	1,220	1,585	355	654	148	156,726
	October	1,242	1,632	355	710	168	162,440
	November	1,765	1,627	352	700	187	152,971
	December	1,760	1,637	345	727	254	144,617
	AVERAGE	1,430	1,618	353	672	208	
1978	January	1,867	1,557	327	645	201	130,797
	February	1,802	1,562	338	659	207	120,274
	March	1,429	1,590	362	601	132	121,317
	April	1,161	1,619	349	599	100	130,002
	May	1,170	1,530	363	498	109	139,581
	June	R1,126	R1,583	R368	R649	R109	R147,540
	July***	1,222	1,577	350	575	160	152,200
	August***	1,414	1,568	368	582	180	155,400
	September***	1,353	1,574	358	573	155	159,700
	AVERAGE (9 months)	1,391	1,573	354	597	150	

*See Explanatory Note 7.

**Total as of December 31.

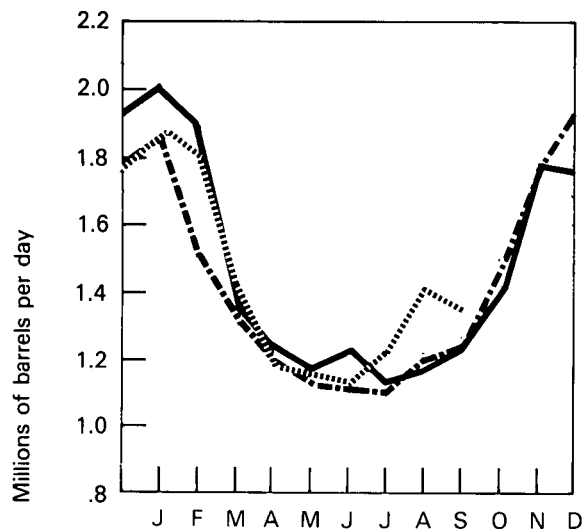
***Estimated.

R=Revised data.

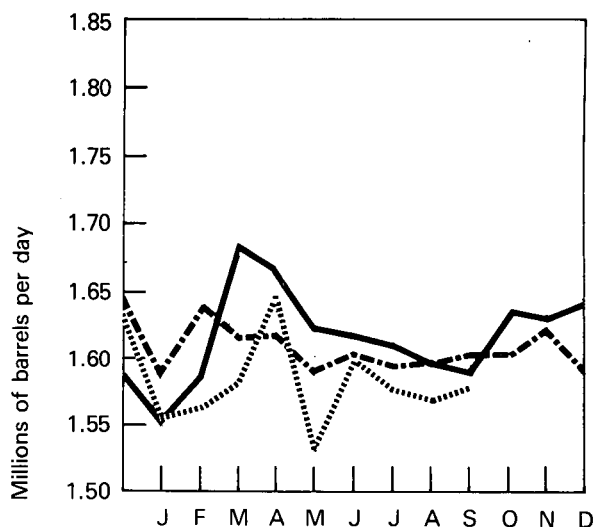
Source: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly" through April 1977; EIA *Energy Data Reports*, "Petroleum Statement, Monthly" for May 1977 through June 1978, and EIA estimates for July 1978 forward.

Natural Gas Liquids

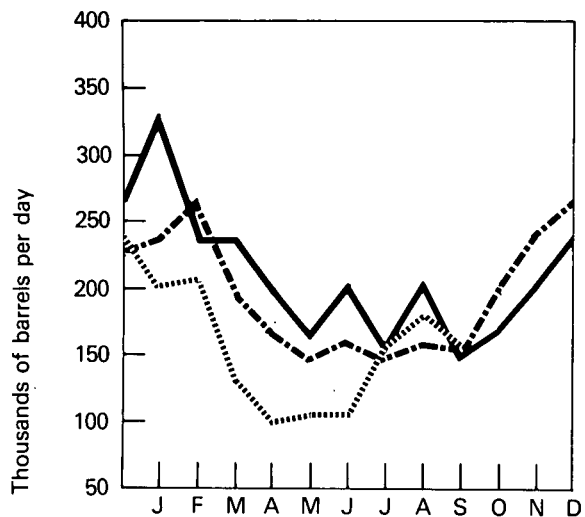
Domestic Demand



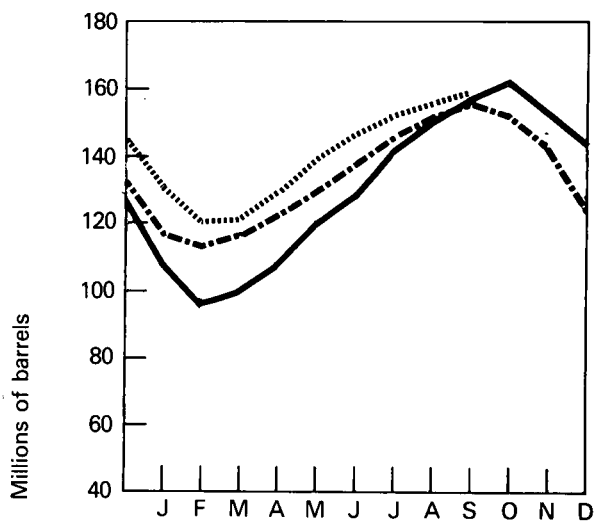
Production at Processing Plants



Imports



Stocks



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA

U.S. Petroleum Supply and Demand

	1977 Actual				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Year
Thousands of barrels per day					
Supply					
Crude oil and lease condensate production	7,956	8,042	8,231	8,481	8,179
Natural gas plant liquids production	1,609	1,633	1,596	1,632	1,618
Other hydrocarbon supply	43	54	52	52	50
Crude oil imports ¹	6,520	6,867	6,624	6,182	6,548
Refined products imports ²	2,813	1,836	2,110	1,955	2,176
Total new supply	18,941	18,432	18,613	18,302	18,571
Processing gain	521	450	543	569	521
Stock change—all oils ³	-278	+1,190	+1,177	+12	+528
Total net supply	19,740	17,692	17,979	18,859	18,564
Unaccounted for crude oil ⁴	+114	+88	+59	+172	+113
Demand					
Crude oil and refined products exports	210	245	259	255	243
Crude oil losses	15	15	16	16	16
Domestic demand for refined products ⁵	19,629	17,520	17,764	18,776	18,418
Total demand	19,854	17,780	18,039	19,047	18,677

	1978 Actual			1978 First Three Quarters	1977 First Three Quarters
	1st Qtr.	2nd Qtr.	3rd Qtr.		
Thousand of barrels per day					
Supply					
Crude oil and lease condensate production	8,514	R8,877	8,677	8,657	8,077
Natural gas plant liquids production	1,570	R1,577	1,573	1,573	1,613
Other hydrocarbon supply	56	48	49	51	50
Crude oil imports ¹	5,845	R5,668	6,091	5,869	6,671
Refined products imports ²	2,238	R1,828	1,873	1,978	2,250
Total new supply	18,223	R17,898	18,263	18,128	18,661
Processing gain	489	R463	542	498	505
Stock change—all oils ³	-1,712	R+63	+563	R-354	+702
Total net supply	20,424	R18,298	18,242	18,980	18,464
Unaccounted for crude oil ⁴	-126	+107	+555	+182	+87
Demand					
Crude oil and refined products exports	246	R349	399	332	238
Crude oil losses	15	16	16	16	15
Domestic demand for refined products ⁵	20,037	R18,040	18,382	18,814	18,298
Total demand	20,298	R18,405	18,797	19,162	18,551

¹Excludes crude oil imported for the Strategic Petroleum Reserve.

²Includes plant condensate and unfinished oils.

³Excludes petroleum stored in the Strategic Petroleum Reserve.

⁴Balancing item resulting from statistical inconsistencies.

⁵Includes international bunkers.

R=Revised Data

Note: 1978 data are preliminary.

Sources: 1st Quarter 1977—BOM *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" 2nd, 3rd, and 4th Quarters 1977 and 1st and 2nd Quarters 1978—Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" 3rd Quarter 1978—EIA "Monthly Petroleum Statistics Report," and EIA estimates.

Natural Gas

Domestic consumption of natural gas in September 1978 was an estimated 15.2 percent lower than in September 1977. Estimated consumption during the first 9 months of 1978, however, was approximately the same as that during the period January through September 1977.

Marketed production of natural gas in September was an estimated 3.6 percent less than in September 1977, and production during the period January through September 1978 was an estimated 2.4 percent lower than during the comparable 1977 period.

Imports of natural gas in September 1978 were an estimated 5.3 percent less than in the previous September, and estimated imports during the first 9 months of 1978 were 9.3 percent below those during the first 3 quarters of 1977. Receipts of foreign natural gas during the period January through September 1978 included Algerian liquefied natural gas (LNG) equivalent to approximately 27 billion cubic feet shipped to the large-scale LNG receiving terminals at Cove Point, Maryland and Elba Island, Georgia.

Working gas* in underground natural gas storage reservoirs at the end of September 1978 was within 11 billion cubic feet of that available a year earlier. This significant improvement in working gas stocks since the end of May 1978 (when they were 13.9 percent less than a year earlier) resulted from record-level net injections during June through September 1978, which totaled 180 billion cubic feet more than during the same period in 1977. Net injections into storage during September 1978 were 23.1 percent higher than in the previous September.

Domestic producer sales of natural gas to major interstate pipeline companies in July 1978 were 2.5 percent higher than during July 1977. Sales during the first 7 months of 1978, however, were 1.6 percent below those for the same period in 1977.

*Gas available for withdrawal.

Natural Gas

		Domestic Consumption*	Marketed Production*	Domestic Producer Sales to Major Interstate Pipelines	Imports	Exports
Billion cubic feet						
1972	TOTAL	22,102	22,532	12,429	1,019	78
1973	TOTAL	22,049	22,648	12,067	1,033	77
1974	TOTAL	21,223	21,601	11,462	959	77
1975	TOTAL	19,538	20,109	10,652	953	73
1976	January	2,291	1,751	894	84	5
	February	1,938	1,647	850	78	5
	March	1,721	1,714	894	85	6
	April	1,508	1,623	849	86	6
	May	1,434	1,673	860	82	5
	June	1,335	1,640	815	76	5
	July	1,372	1,676	822	73	6
	August	1,317	1,636	810	77	6
	September	1,302	1,565	793	74	6
	October	1,621	1,639	840	85	5
	November	1,875	1,635	841	81	5
	December	2,232	1,753	872	83	5
	TOTAL	19,946	19,952	10,140	964	65
1977	January	R2,407	1,740	848	R87	5
	February	R1,816	1,674	807	R92	4
	March	R1,715	1,751	910	R101	4
	April	R1,439	1,644	830	R84	3
	May	R1,379	1,692	830	R86	3
	June	R1,333	1,648	789	76	5
	July	R1,325	1,674	801	R73	7
	August	R1,364	1,645	784	R76	5
	September	R1,427	1,598	741	R75	5
	October	R1,518	1,628	831	85	5
	November	R1,690	1,606	830	86	5
	December	R2,108	1,725	882	90	5
	TOTAL	R19,521	20,025	9,883	R1,011	56
1978	January	2,353	1,707	862	87	5
	February	2,116	1,618	756	77	4
	March	1,889	1,714	861	86	4
	April	1,513	1,636	836	78	3
	May	1,353	1,629	819	76	4
	June	R1,222	R1,597	768	67	5
	July	1,310	**1,670	821	70	6
	August	1,230	**1,600	NA	**68	5
	September	1,210	**1,540	NA	**71	5
	TOTAL	14,196	14,711	5,723	680	41
(Year to date)				(7 months)		

*See Explanatory Note 8.

**Estimated data.

R=Revised data.

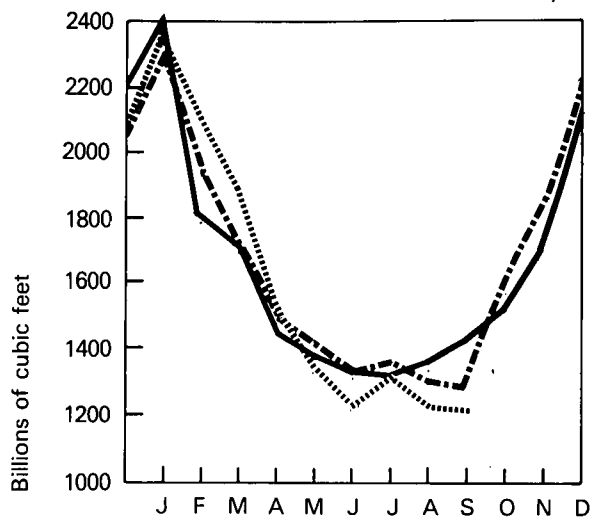
NA=Not available.

Note: All monthly Domestic Consumption and 1978 Exports data are estimated.

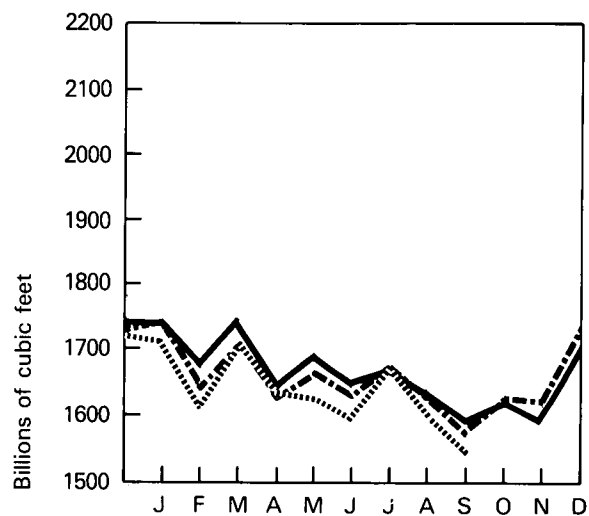
Sources: Domestic Consumption—EIA estimates; Marketed Production, Imports, and Exports—Bureau of Mines *Mineral Industry Surveys*, "Natural Gas, Monthly" through June 1977 and EIA *Energy Data Reports*, "Natural Gas, Monthly" for July 1977 forward; Domestic Producer Sales—Federal Power Commission Form 11, "Monthly Statement of Gas Operating Revenues, Sales."

Natural Gas

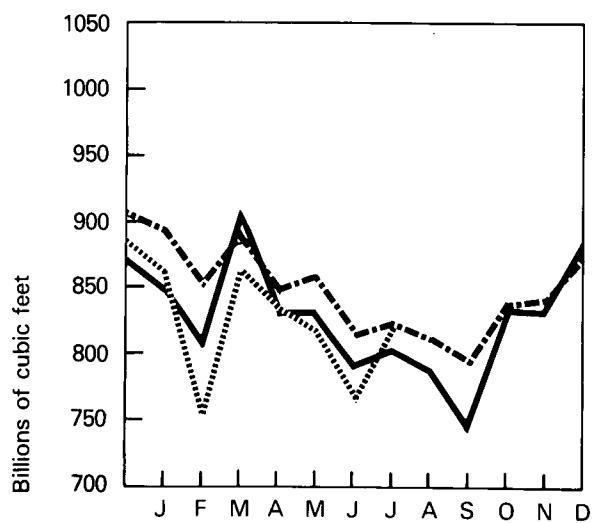
Domestic Consumption



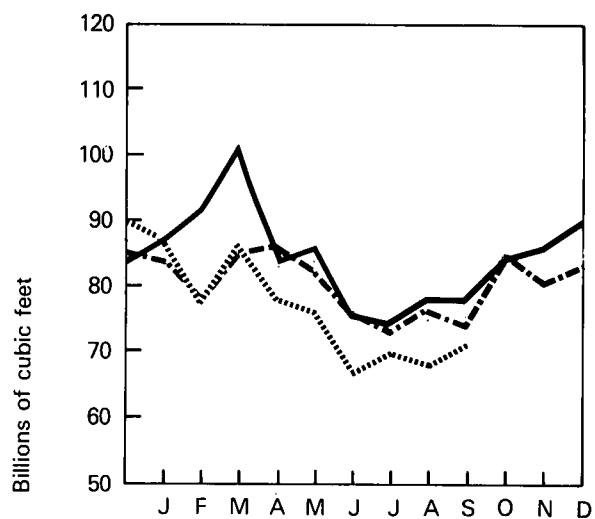
Marketed Production



Domestic Producer Sales to Major Interstate Pipelines



Imports



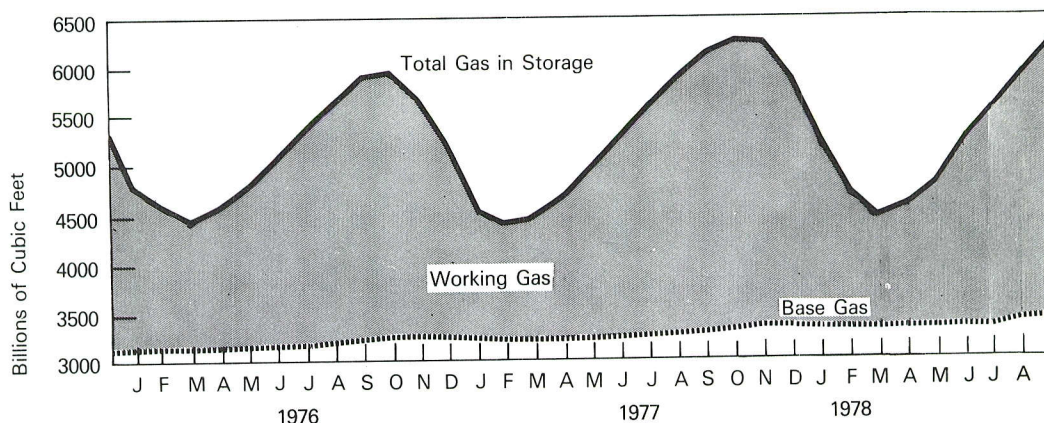
--- 1976
 — 1977
 1978

Natural Gas (Continued)

Natural Gas in Underground Storage*

		Total Gas in Storage	Base Gas	Working Gas	Storage Injections	Storage Withdrawals	Net Storage Injections
		Billion cubic feet					
1975	September	5,553	3,085	2,468	220	31	189
	October	5,706	3,107	2,599	190	51	139
	November	5,691	3,150	2,541	98	146	-48
	December	5,358	3,150	2,208	38	371	-333
1976	January	4,817	3,169	1,648	17	526	-509
	February	4,617	3,173	1,444	66	265	-199
	March	4,496	3,170	1,326	79	200	-121
	April	4,607	3,184	1,423	185	75	110
	May	4,827	3,190	1,637	245	24	221
	June	5,116	3,208	1,908	304	27	277
	July	5,412	3,220	2,192	301	6	295
	August	5,698	3,251	2,447	298	17	281
	September	5,946	3,296	2,650	259	22	237
	October	5,966	3,302	2,664	135	116	19
	November	5,713	3,305	2,408	40	291	-251
	December	5,231	3,310	1,921	23	505	-482
1977	January	4,580	3,293	1,287	18	670	-652
	February	4,446	3,283	1,163	101	235	-134
	March	4,501	3,286	1,215	187	132	55
	April	4,713	3,286	1,427	256	43	213
	May	5,024	3,293	1,731	329	17	312
	June	5,330	3,300	2,030	317	12	305
	July	5,665	3,317	2,348	348	15	333
	August	5,945	3,346	2,599	290	21	269
	September	6,188	3,364	2,824	262	2	260
	October	6,302	3,373	2,929	157	44	113
	November	6,224	3,403	2,821	84	160	-76
	December	5,844	3,377	2,467	41	416	-375
1978	January	5,193	3,374	1,819	21	668	-647
	February	4,683	3,373	1,310	21	530	-509
	March	4,497	3,374	1,123	92	278	-186
	April	4,608	3,377	1,231	179	68	111
	May	4,870	3,378	1,491	291	30	261
	June	5,217	3,381	1,836	365	18	347
	July	5,550	3,386	2,164	349	16	333
	August	5,904	3,403	2,501	359	12	347
	September	6,224	3,411	2,813	329	9	320

Gas in Storage



*See Explanatory Note 9.

Sources: Federal Energy Administration Form G318-M-O and Federal Power Commission Form 8 "Underground Gas Storage Report."

Part 5

Oil and Gas Exploration and Development

The rotary rig count climbed to 2,332 in September 1978, the highest September count since 1957.

Well completions increased in September 1978 to 4,357. For the January through September 1978 period, the number of wells drilled was up 7.0 percent from the number drilled during the corresponding period in 1977. Compared to the first 9 months of 1977, oil well completions in 1978 were down 3.4 percent, while gas wells were up 17.8 percent and dry holes were up 12.6 percent. Total footage drilled rose 10.4 percent during the period.

Resource Development

Oil and Gas Exploration and Development

		Rotary Rigs in Operation	Exploratory and Development Wells Drilled*					Total Footage of Wells Drilled*
		Monthly Average		Oil	Gas	Dry	Total	Thousands of feet
1972	AVERAGE	1,107	TOTAL	11,306	4,928	11,057	27,291	134,602
1973	AVERAGE	1,194	TOTAL	9,902	6,385	10,305	26,592	136,391
1974	AVERAGE	1,475	TOTAL	12,784	7,240	11,674	31,698	150,551
1975	AVERAGE	1,660	TOTAL	16,408	7,580	13,247	37,235	174,434
1976	January	1,710		1,465	772	1,055	3,292	14,517
	February	1,594		1,341	652	1,159	3,152	14,888
	March	1,540		1,726	821	1,301	3,848	18,126
	April	1,480		1,237	672	994	2,903	13,765
	May	1,496		1,501	658	1,104	3,263	14,196
	June	1,546		1,500	709	1,123	3,332	14,780
	July	1,597		1,312	730	916	2,958	13,716
	August	1,691		1,265	711	1,140	3,116	14,697
	September	1,744		1,474	909	1,199	3,582	16,777
	October	1,794		1,396	750	1,123	3,269	14,542
	November	1,840		1,291	698	1,222	3,211	14,642
	December	1,860		1,512	926	1,414	3,852	17,093
		AVERAGE	1,656	TOTAL**	17,059	9,085	13,621	39,765
1977	January	1,850		1,391	732	1,096	3,219	14,517
	February	1,856		1,321	705	999	3,025	14,443
	March	1,887		1,817	958	1,297	4,072	19,400
	April	1,907		1,405	818	1,059	3,282	15,523
	May	1,982		1,382	877	1,150	3,409	16,702
	June	2,008		1,720	952	1,270	3,942	18,767
	July	2,023		1,304	724	1,022	3,050	14,529
	August	2,066		1,400	961	1,179	3,540	16,838
	September	2,084		1,924	1,105	1,288	4,317	19,333
	October	2,101		1,562	1,024	1,254	3,840	18,000
	November	2,113		1,785	1,091	1,447	4,323	19,537
	December	2,141		1,875	1,387	1,569	4,831	21,365
		AVERAGE	2,001	TOTAL**	18,912	11,378	14,692	44,982
1978	January	2,128		1,184	783	1,233	3,200	15,394
	February	2,135		1,486	851	1,239	3,576	16,933
	March	2,158		1,499	1,247	1,420	4,166	20,392
	April	2,198		1,369	971	1,112	3,452	17,559
	May	2,249		1,209	1,004	1,166	3,379	17,189
	June	2,286		1,812	1,071	1,489	4,372	21,115
	July	2,307		1,503	985	1,191	3,679	17,258
	August	2,325		1,516	1,085	1,290	3,891	18,440
	September	2,332		1,619	1,227	1,511	4,357	21,234
		AVERAGE (9 months)	2,235	TOTAL** (9 months)	13,205	9,227	11,663	34,095

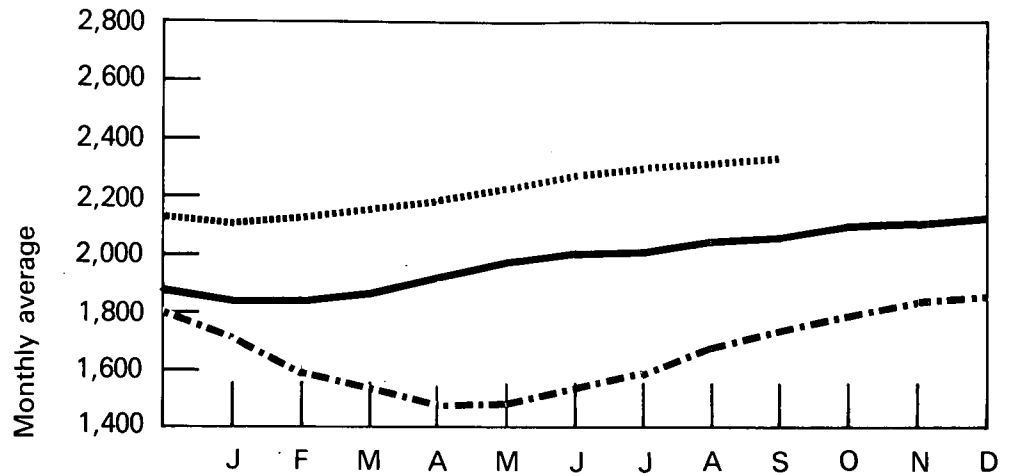
*Excludes service wells and stratigraphic and core tests.

**Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.

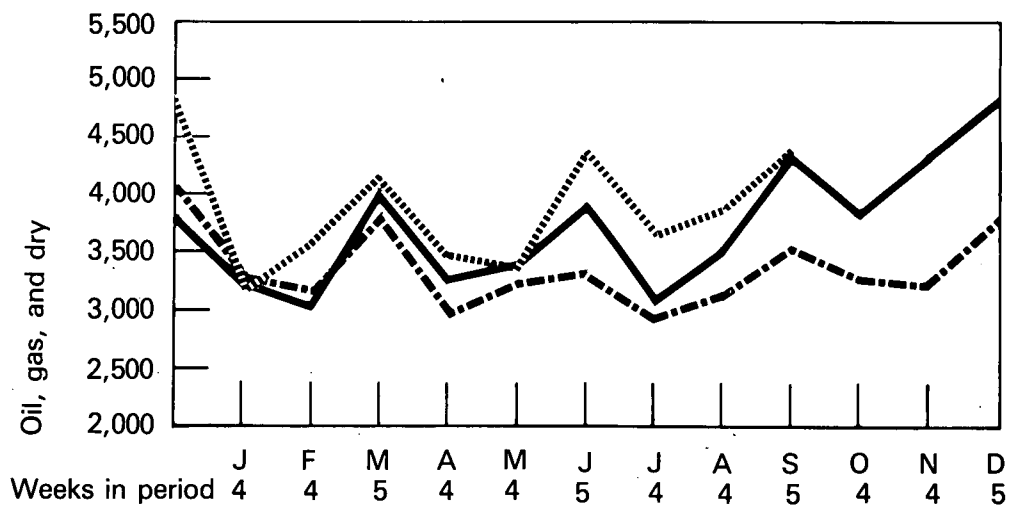
NA=Not available.

Sources: Rotary Rigs: Hughes Tool Company "Rotary Rigs Running - By State;" Wells: American Petroleum Institute "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States."

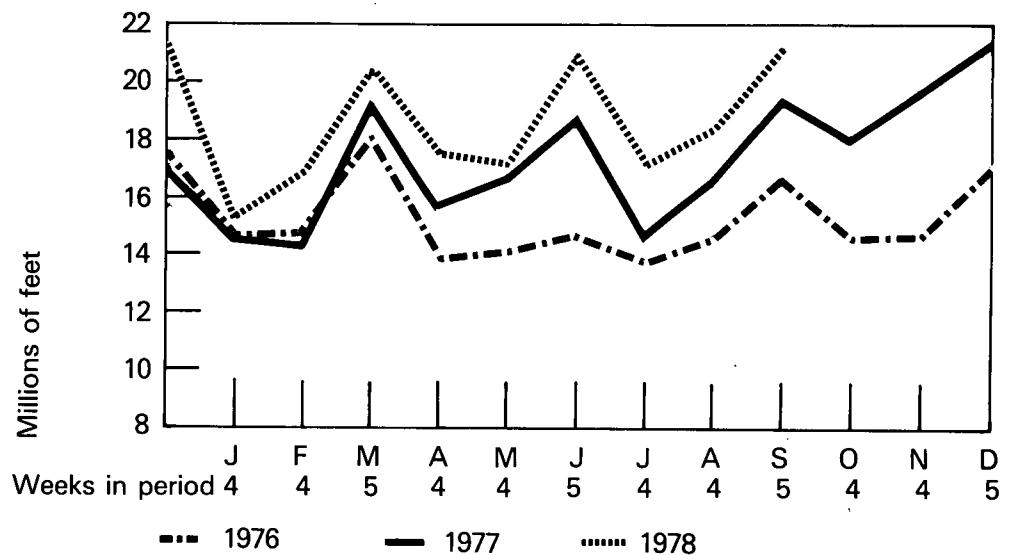
Rotary Rigs in Operation



Total Wells Drilled



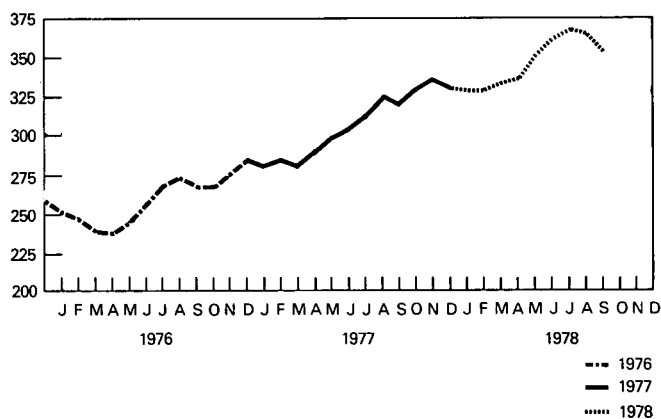
Total Footage of Wells Drilled



Oil and Gas Exploration and Development (Continued)

		Crews Engaged in Seismic Exploration			Line Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore	Onshore	Total
		Monthly average			Monthly average		
1972	Year	12	239	251	10,306	9,333	19,639
1973	Year	23	227	250	21,579	10,597	32,175
1974	Year	31	274	305	28,482	13,219	41,701
1975	Year	30	254	284	25,773	12,558	38,331
1976	Year	25	237	262	18,859	11,910	30,769
1977	Year	27	281	308	NA	NA	NA
1976	January	20	232	252			
	February	17	232	249			
	March	18	222	240			
	April	17	221	238			
	May	21	226	247			
	June	29	229	258			
	July	30	240	270			
	August	33	242	275			
	September	28	240	268			
	October	21	246	267			
	November	25	250	275			
	December	27	259	286			
1977	January	26	254	280			
	February	27	259	286			
	March	22	260	282			
	April	26	266	292			
	May	29	272	301			
	June	31	274	305			
	July	30	285	315			
	August	31	295	326			
	September	29	291	320			
	October	28	302	330			
	November	26	309	335			
	December	26	303	329			
1978	January	26	302	328			
	February	23	305	328			
	March	20	314	334			
	April	21	315	336			
	May	21	330	351			
	June	26	336	362			
	July	26	341	367			
	August	27	338	365			
	September	21	333	354			
	AVERAGE (9 months)	23	324	347			

Total Seismic Crews



NA=Not available.

Source: Society of Exploration Geophysicists "Monthly Seismic Crew Count" and annual reports published in *Geophysics*.

Coal

Coal production in the third quarter of 1978 totaled 170.1 million tons, 7.6 million tons below the level of output in the third quarter of 1977. Production in the first 9 months of 1978 totaled 452.6 million tons, 73.5 million tons or 14.0 percent below the production level for the same period in 1977. The lower production levels in 1978 include losses due to the strike of the United Mine Workers during the first quarter and the 9-week strike against the Norfolk and Western Railway in the third quarter.

Domestic consumption of coal totaled 57.5 million tons in August 1978, up 4.2 percent from the amount consumed during August 1977. In the first 8 months of 1978, coal consumption was 406.7 million tons, 2.8 percent below consumption for the same period in 1977. Electric utility coal consumption* was 46.0 million tons in August 1978 compared with 44.1 million tons in August 1977. Utilities consumed 315.1 million tons in the first 8 months of 1978, 3.2 million tons less than the amount consumed during the same period a year earlier. Coke plants, the second largest coal consuming sector, used 6.4 million tons in August 1978 compared with 6.2 million tons in August 1977. In the first 8 months of 1978, coal consumption by coke plants was 45.0 million tons, 8.3 million tons below the amount consumed in the same period a year earlier. Total coal consumption by general industry and shipments to retail dealers totaled 46.6 million tons, 0.5 million tons less than the January through August period of 1977.

Electric utility stockpiles* increased from 109.7 million tons on July 31, 1978 to 112.0 million tons at the end of August. Stocks of coking coal were 6.4 million tons on August 31, 0.3 million tons below the July 31 level. Bituminous coal and lignite stocks held by general industry increased from 5.9 million tons at the end of July to 5.5 million tons at the end of August. Bituminous coal and lignite stocks at retail dealer yards increased from 0.3 million tons to 0.4 million tons during August.

The United States exported 3.6 million tons of coal in August 1978, 0.7 million less than the amount exported in August 1977. Exports for the first 8 months of 1978 were 21.6 million tons, 14.2 million tons below the amount exported during the same period a year earlier, and 16.6 million tons below the level of exports for the January through August period of 1976. U.S. imports of coal increased from 0.8 million tons during the first 8 months of 1977 to 2.1 million tons for the same period in 1978.

*Includes bituminous, lignite, and anthracite stocks, does not include petroleum coke consumption/stocks.

Coal

Bituminous, Lignite, and Anthracite

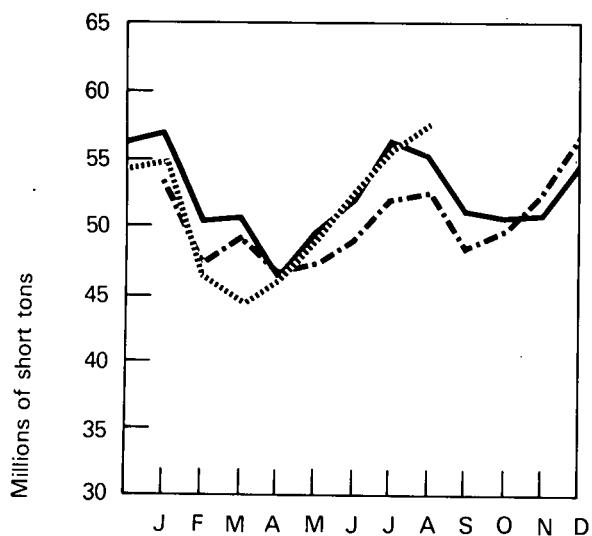
		Production	Domestic Consumption	Imports	Exports
Thousands of short tons					
1972	Total	602,492	524,263	47	56,740
1973	Total	598,568	562,583	127	53,587
1974	Total	610,023	558,402	2,080	60,661
1975	Total	654,641	562,643	940	66,309
1976	January	53,093	53,392	103	3,711
	February	54,213	47,262	114	3,074
	March	61,443	49,044	40	4,000
	April	59,665	46,850	132	5,846
	May	58,489	47,121	90	5,747
	June	60,290	48,845	192	6,644
	July	44,808	52,067	39	4,927
	August	54,212	52,457	90	4,270
	September	61,149	48,089	65	5,734
	October	59,389	49,767	94	5,913
	November	59,273	52,277	149	5,507
	December	58,889	56,619	95	4,648
	TOTAL	684,913	603,790	1,203	60,021
1977	January	44,930	57,001	123	2,180
	February	49,480	50,483	75	3,121
	March	67,045	50,748	31	3,449
	April	60,780	46,740	170	5,655
	May	62,770	49,560	94	5,757
	June	63,385	52,110	92	6,045
	July	49,825	56,501	112	5,222
	August	58,165	55,158	100	4,334
	September	69,750	51,052	175	5,131
	October	67,970	50,626	274	4,931
	November	69,315	50,715	326	4,566
	December	31,360	54,137	231	3,921
	TOTAL	694,775	624,831	1,803	54,312
1978	January	23,545	54,805	139	894
	February	23,860	46,439	159	588
	March	39,375	44,350	231	377
	April	60,105	46,044	417	2,613
	May	69,410	49,313	323	4,473
	June	66,160	52,317	291	5,429
	July	52,720	55,929	313	3,574
	August	62,685	57,489	227	3,634
	September	54,725	NA	NA	NA
	TOTAL (Year to date)	452,585	406,686	2,100	21,582

NA = Not available.

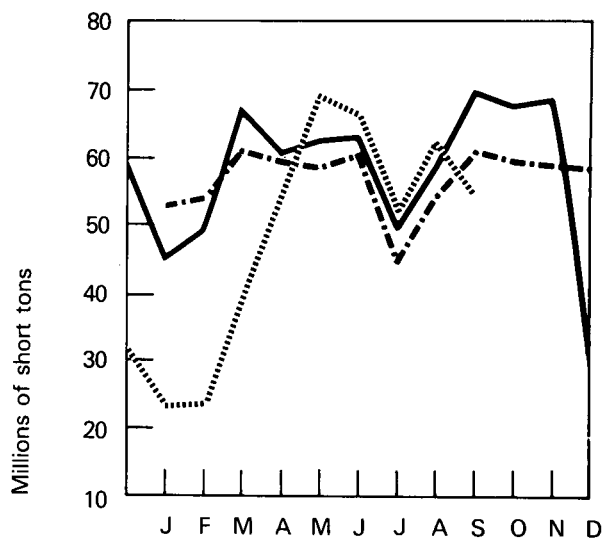
Source: Exports and Imports—U.S. Department of Commerce, Bureau of the Census; remaining data—Bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report" through September 1977; and EIA *Energy Data Reports*, "Weekly Coal Report" for October 1977 forward.

Bituminous, Lignite, and Anthracite

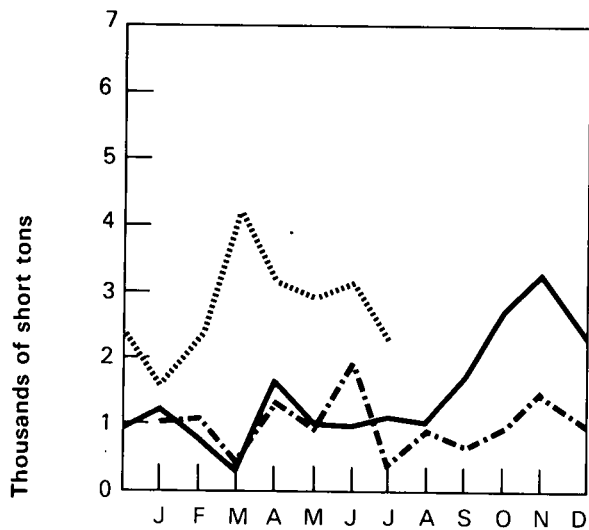
Domestic Consumption



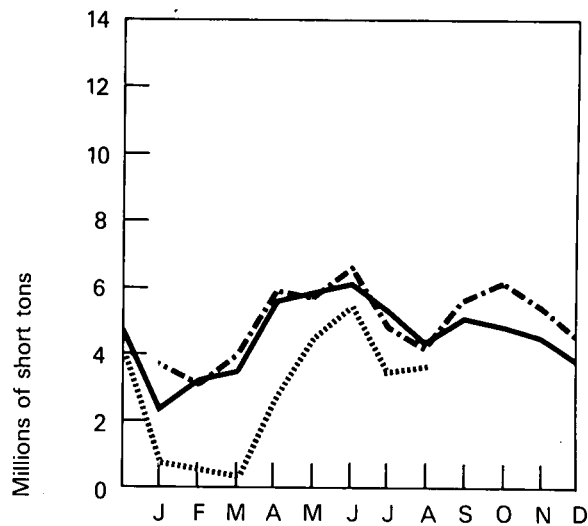
Production



Imports



Exports



--- 1976
 — 1977
 1978

Bituminous and Lignite

		Production*	Domestic Consumption*	Imports	Exports	Stocks**
		Thousands of short tons				
1972	TOTAL	595,386	R518,348	47	55,997	R115,748
1973	TOTAL	591,738	R556,912	127	52,870	R103,412
1974	TOTAL	603,406	R552,954	2,080	59,926	R95,477
1975	TOTAL	648,438	R557,535	940	65,669	R127,150
1976	January	52,568	52,932	103	3,697	119,220
	February	53,773	46,832	114	3,050	119,004
	March	60,918	48,624	40	3,979	123,471
	April	59,145	46,415	132	5,780	128,393
	May	57,934	46,681	90	5,667	136,013
	June	59,680	48,445	192	6,569	140,144
	July	44,318	51,717	39	4,880	129,661
	August	53,622	52,082	90	4,223	123,853
	September	60,634	47,689	65	5,614	129,878
	October	58,899	49,312	94	5,871	133,624
	November	58,780	51,877	149	5,451	135,019
	December	58,414	56,144	95	4,625	133,555
	TOTAL	678,685	598,750	1,203	59,406	
1977	January	44,525	56,561	123	2,143	118,116
	February	49,045	50,033	75	3,079	114,363
	March	66,445	50,278	31	3,390	122,593
	April	60,280	46,290	170	5,637	129,878
	May	62,220	49,120	94	5,673	137,673
	June	62,810	51,690	92	6,019	145,914
	July	49,425	56,141	112	5,158	137,463
	August	57,560	54,758	100	4,279	136,832
	September	69,200	50,622	175	5,037	144,953
	October	67,420	50,191	274	4,871	158,164
	November	68,715	50,245	326	4,491	173,063
	December	30,930	53,687	231	3,910	152,317
	TOTAL	688,575	619,616	1,803	53,687	
1978	January	23,115	54,405	139	870	118,121
	February	23,520	46,014	159	555	93,130
	March	38,765	43,810	231	325	83,942
	April	59,530	45,504	417	2,594	96,462
	May	68,760	48,753	323	4,411	110,886
	June	65,565	51,827	291	5,398	121,800
	July	R52,150	R55,429	313	3,531	R119,791
	August	R62,005	56,899	227	3,568	121,600
	September	54,150	NA	NA	NA	NA
	TOTAL (Year to date)	447,560	402,641	2,100	21,252	

*See Explanatory Note 10.

**Total stocks held by utilities, industrial consumers, and retail dealers at end of year or month.

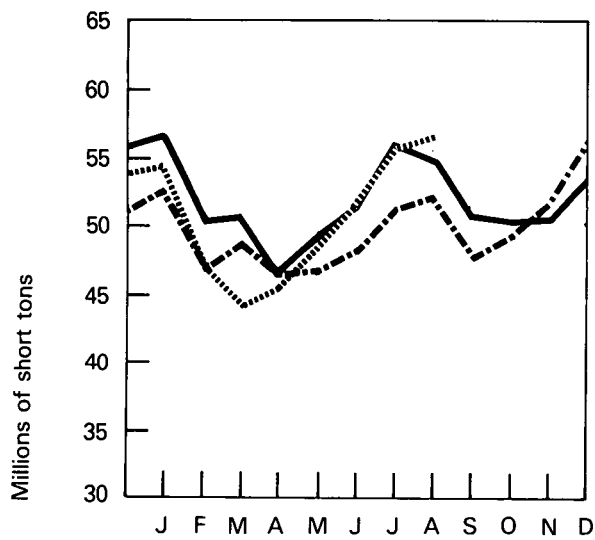
R=Revised data.

NA=Not available.

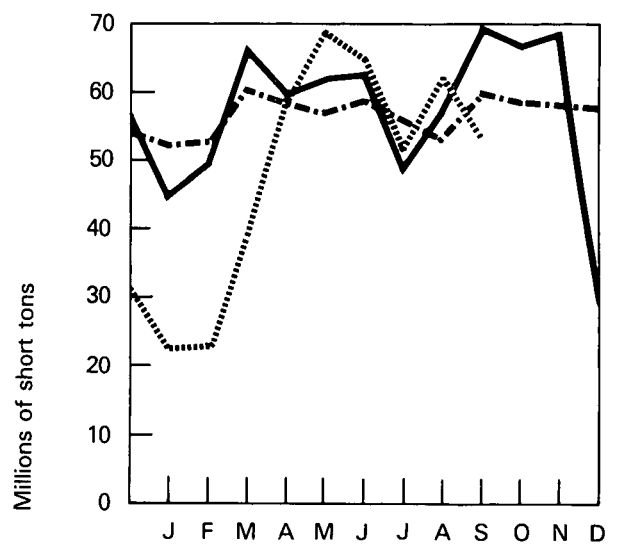
Source: Exports and Imports—U.S. Department of Commerce, Bureau of the Census; remaining data—Bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report" through September 1977; and EIA *Energy Data Reports*, "Weekly Coal Report" for October 1977 forward.

Bituminous and Lignite

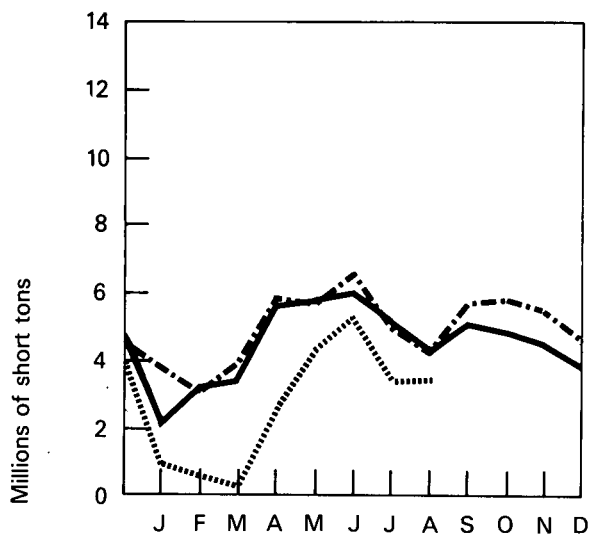
Domestic Consumption



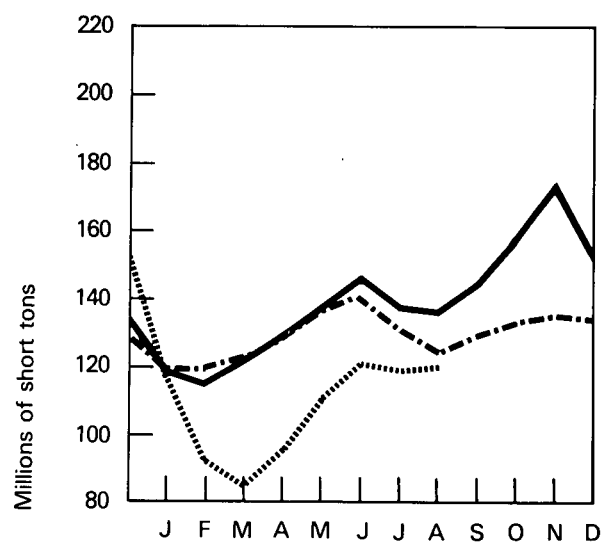
Production



Exports



Stocks



--- 1976
 — 1977
 1978

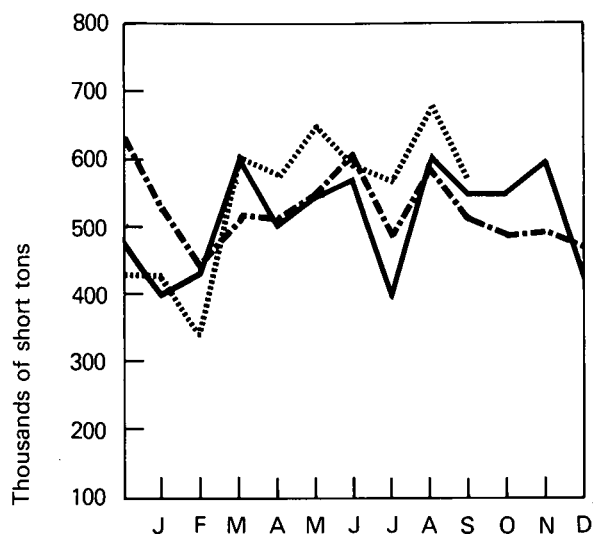
Anthracite

Domestic
Production* Consumption* Imports Exports

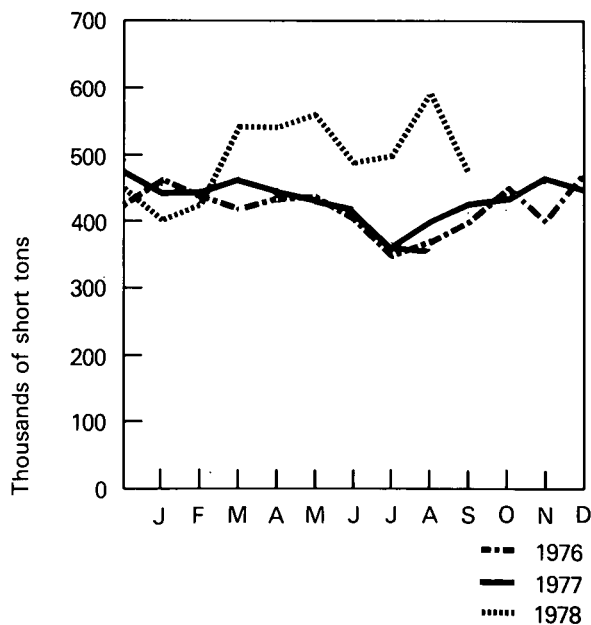
Thousands of short tons

1972 Total	7,106	5,915	NA	743
1973 Total	6,830	5,671	NA	717
1974 Total	6,617	5,448	NA	735
1975 Total	6,203	5,108	NA	640
1976				
January	525	460	NA	14
February	440	430	NA	24
March	525	420	NA	21
April	520	435	NA	66
May	555	440	NA	80
June	610	400	NA	75
July	490	350	NA	47
August	590	375	NA	47
September	515	400	NA	120
October	490	455	NA	42
November	493	400	NA	56
December	475	475	NA	23
TOTAL	6,228	5,040	NA	615
1977				
January	405	440	NA	37
February	R435	450	NA	42
March	R600	470	NA	59
April	R500	450	NA	18
May	R550	440	NA	84
June	R575	420	NA	26
July	R400	360	NA	64
August	R605	400	NA	55
September	R550	430	NA	94
October	550	435	NA	60
November	R600	470	NA	75
December	R430	450	NA	11
TOTAL	6,200	5,215	NA	625
1978				
January	430	400	NA	24
February	340	425	NA	33
March	610	540	NA	52
April	575	540	NA	19
May	650	560	NA	62
June	595	490	NA	31
July	570	500	NA	43
August	680	590	NA	66
September	575	480	NA	NA
TOTAL	5,025	4,525	NA	330
(Year to date)				

Production



Apparent Domestic Consumption



*Does not include shipments of anthracite to U.S. Armed Forces in Europe.

R=Revised data

NA=Not available.

Source: Exports and Imports—U.S. Department of Commerce, Bureau of the Census; remaining data—Bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report" through September 1977; and EIA *Energy Data Reports*, "Weekly Coal Report" for October 1977 forward.

Electric Utilities

August 1978 production of electricity by utilities was 205.6 billion kilowatt hours, an increase of 4.8 percent from the August 1977 production level. Total production during the first 8 months of 1978 was 1.5 trillion kilowatt hours, 3.2 percent above the level for the same months of 1977. Per Edison Electric Institute, preliminary-estimated production for September 1978 was 186.7 billion kilowatt hours.

Sales of electricity to ultimate consumers by all electric utilities in the United States in July totaled 177.7 billion kilowatt-hours, an increase of 2.5 percent over July 1977. Sales to residential consumers during July were 61.4 billion kilowatt-hours, an increase of 0.7 percent over sales for the corresponding month in 1977. Commercial sales were 42.6 billion kilowatt-hours, 1.8 percent higher than in July 1977. Sales to industrial consumers totaled 67.4 billion kilowatt-hours in July, an increase of 4.3 percent over July 1977. Other sales during July totaled 6.3 billion kilowatt-hours, or 6.6 percent more than the same month of the previous year.

Electric utility oil consumption during August 1978 was 0.7 percent below the August 1977 consumption level. Total oil consumption for the first 8 months of 1978 was 440.3 million barrels, 0.5 percent above the 1977 level. Coal* consumption for August 1978 was 46.0 million tons, 4.1 percent above the 1977 rate. The total consumption of coal* for the first 8 months of 1978 was 315.5 million tons, 1.0 percent below the 1977 level. During August 1978 consumption of natural gas by electric utilities reached 338.0 billion cubic feet, 3.6 percent below the August 1977 consumption rate. Gas consumption for the first 8 months of 1978 was 2.3 percent above the 1977 rate.

During August 1978, coal* stocks increased by 2.1 percent above the stockpile level of a month earlier. Although August 31, 1978 coal* stocks increased from the previous month's level, stockpiles of coal at electric utilities were still 9.4 percent below the stock level on August 31, 1977. Oil stocks on August 31, 1978 were virtually unchanged from the same month of 1977.

*Coal includes petroleum coke.

Electric Utilities

Net Electricity Production

		Coal*	Oil	Gas	Nuclear	Hydro-electric	Other**	Total
Millions of kilowatt hours								
1971	TOTAL	714,680	218,622	374,027	38,105	266,301	859	1,612,593
1972	TOTAL	772,857	272,550	375,735	54,091	272,612	1,783	1,749,629
1973	TOTAL	848,988	312,940	340,804	83,334	272,081	2,294	1,860,440
1974	TOTAL	829,973	299,363	320,055	113,976	301,032	2,704	1,867,103
1975	TOTAL	852,968	288,908	299,772	172,506	300,047	3,437	1,917,638
1976	January	83,707	32,214	19,895	16,099	26,070	344	178,329
	February	73,532	24,767	19,163	14,377	24,521	323	156,683
	March	76,570	25,420	21,282	13,993	26,563	346	164,174
	April	72,571	23,299	21,867	10,982	24,137	312	153,168
	May	72,512	21,794	25,319	11,929	25,516	300	157,370
	June	76,939	25,103	29,715	15,757	25,563	314	173,391
	July	83,294	26,997	32,032	17,709	26,064	338	186,434
	August	84,222	28,248	31,394	18,363	23,843	336	186,406
	September	75,384	23,608	28,058	17,290	20,369	327	165,036
	October	76,955	24,168	23,918	17,355	21,042	319	163,757
	November	81,702	30,060	21,119	16,134	19,805	293	169,113
	December	87,220	34,130	20,897	21,115	20,220	332	183,914
	TOTAL	944,608	319,808	294,659	191,103	283,713	3,884	2,037,775
1977	January	89,844	43,363	19,953	22,152	20,700	359	R196,372
	February	78,752	29,429	19,481	19,601	15,150	322	R162,734
	March	77,521	28,343	22,467	20,672	19,801	356	169,160
	April	70,898	25,834	21,297	19,867	18,642	319	156,857
	May	77,071	27,945	24,701	20,599	18,677	341	R169,335
	June	83,148	28,947	29,623	21,517	17,226	335	R180,797
	July	92,408	34,866	32,715	21,825	16,799	328	R198,940
	August	90,764	32,302	33,293	22,750	16,712	317	196,138
	September	82,593	26,348	30,942	19,630	16,455	342	R176,311
	October	79,406	23,061	27,359	19,041	17,219	360	166,446
	November	79,495	24,848	22,582	19,458	20,428	347	167,158
	December	83,640	32,652	21,151	23,771	22,787	337	R184,339
	TOTAL	985,540	357,938	R305,563	250,883	R220,597	4,063	R2,124,585
1978	January	85,029	39,228	22,302	25,833	25,067	357	R197,815
	February	70,692	38,072	20,362	21,833	22,399	309	173,667
	March	66,758	36,840	22,261	22,449	24,662	264	R173,233
	April	70,411	24,915	21,315	17,580	25,327	208	159,756
	May	76,491	R24,328	25,063	20,416	28,775	187	175,261
	June	84,093	26,065	30,589	22,185	25,245	225	188,402
	July	89,565	R29,023	R34,191	25,007	24,558	R250	R202,595
	August	93,042	32,092	32,452	25,599	22,132	318	205,637
	TOTAL	636,081	250,563	208,535	180,902	198,165	2,118	1,476,366
	(Year to date)							

*Coal includes petroleum coke.

**Includes electricity produced from geothermal power, wood, and waste.

R=Revised data.

NA=Not available.

Source: Federal Power Commission Form 4, "Monthly Powerplant Report".

Components may not sum to totals due to independent rounding.

Electric Utilities (Continued)

Fuel Consumption

		Coal*	Oil			Gas
				Gas Turbine/ Internal Combustion***	Total	
		Thousands of short tons	Steam**	Thousands of barrels		Millions of cubic feet
1971	TOTAL	327,887	362,186	34,282	396,468	3,975,971
1972	TOTAL	352,392	440,229	53,463	493,692	3,976,770
1973	TOTAL	389,707	513,127	47,020	560,147	3,659,388
1974	TOTAL	392,423	482,524	53,721	536,245	3,443,293
1975	TOTAL	406,030	466,940	39,188	506,128	3,157,584
1976	January	39,986	51,114	4,974	56,088	206,528
	February	34,965	40,452	2,676	43,128	199,441
	March	36,099	41,154	2,800	43,954	222,765
	April	33,805	37,663	2,489	40,152	227,826
	May	33,944	35,651	2,220	37,871	266,632
	June	36,381	40,065	3,574	43,639	313,369
	July	39,841	43,143	4,084	47,227	337,640
	August	40,330	45,627	3,443	49,070	329,737
	September	35,895	38,245	2,526	40,771	295,071
	October	36,783	39,101	3,106	42,207	250,046
	November	38,845	47,346	4,971	52,317	217,362
	December	41,582	53,949	5,564	59,513	214,869
		TOTAL	448,456	513,510	42,427	555,937
1977	January	43,255	66,379	9,518	75,896	205,074
	February	37,665	47,659	3,150	50,809	200,413
	March	37,218	46,172	2,495	48,666	231,826
	April	34,051	42,218	2,213	44,431	223,081
	May	37,159	44,779	3,846	48,625	259,800
	June	40,151	46,249	4,303	50,552	310,706
	July	44,977	54,664	7,741	62,406	346,677
	August	44,172	51,950	4,646	56,596	350,756
	September	40,168	43,297	2,523	45,820	324,614
	October	38,379	38,071	1,900	39,971	284,844
	November	38,722	40,654	2,469	43,123	234,198
	December	41,312	52,780	4,067	56,848	219,984
		TOTAL	R477,230	574,872	48,871	R623,745
1978	January	42,715	61,263	8,245	69,508	229,083
	February	35,884	59,630	7,696	67,326	211,097
	March	34,066	58,770	5,466	64,236	232,283
	April	34,655	40,923	2,153	43,076	222,871
	May	37,224	40,289	2,291	42,580	R260,574
	June	40,822	R42,728	3,573	R46,302	321,062
	July	44,152	47,548	R3,531	R51,079	R361,453
	August	46,003	52,468	3,751	56,219	338,046
		TOTAL (8 months)	315,521	403,619	36,706	440,326

*Coal includes petroleum coke.

**Primarily residual fuel oil.

***Primarily middle distillates.

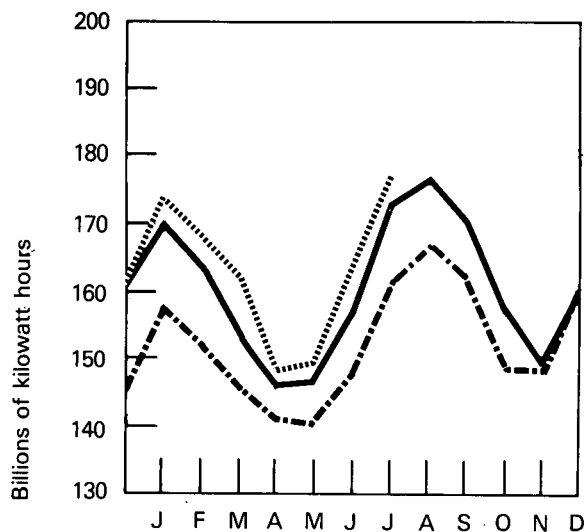
R=Revised.

Source: Federal Power Commission Form 4, "Monthly Powerplant Report."

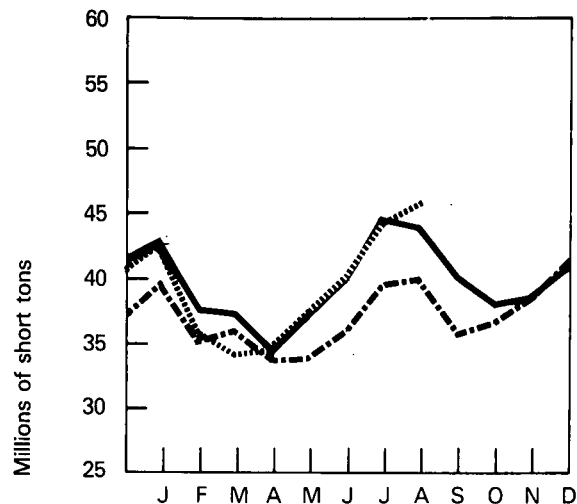
Components may not sum to totals due to independent rounding.

Electric Utilities

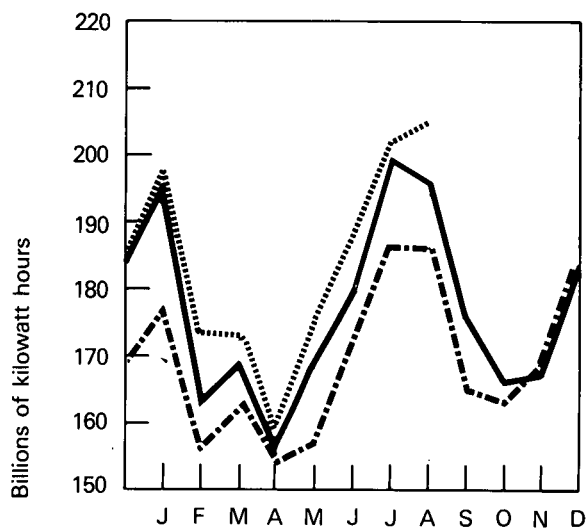
Total Electricity Sales



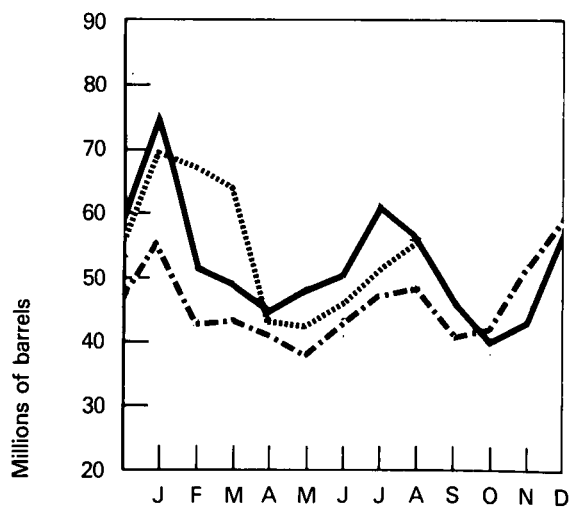
Coal Consumption



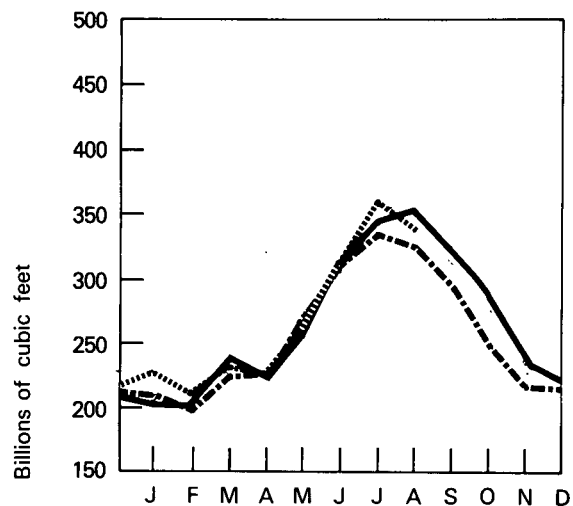
Total Net Electricity Production



Oil Consumption



Gas Consumption



--- 1976 — 1977 1978

Electric Utilities (Continued)

Stocks at End of Month

		Coal*	Oil		
			Steam**	Gas Turbine/ Internal Combustion***	Total
		Thousands of short tons	Thousands of barrels		
1971****		78,069	46,451	3,194	49,645
1972****		100,009	52,575	5,079	57,654
1973****		87,279	79,121	10,095	89,216
1974****		83,542	97,201	15,715	112,916
1975****		110,750	108,358	16,886	125,244
1976	January	105,518	102,023	15,922	117,945
	February	104,874	102,147	16,706	118,853
	March	108,450	104,082	16,467	120,550
	April	112,862	103,757	16,642	120,399
	May	119,611	109,142	16,962	126,105
	June	123,048	109,660	16,621	126,281
	July	115,204	110,829	15,862	126,691
	August	110,752	109,823	16,007	125,830
	September	115,399	112,965	17,059	130,024
	October	118,591	114,437	16,954	131,391
	November	119,323	111,137	15,517	126,655
	December	117,493	106,744	14,980	121,724
1977	January	106,183	90,104	12,740	102,844
	February	103,307	95,934	14,098	R110,031
	March	109,620	98,148	15,479	113,627
	April	115,915	101,801	15,818	117,619
	May	122,834	104,094	15,841	R119,936
	June	128,820	107,932	15,644	123,576
	July	123,405	113,250	16,028	R129,279
	August	123,856	119,599	17,093	136,692
	September	130,379	125,360	17,864	143,224
	October	139,705	128,452	19,128	147,580
	November	149,731	129,701	19,149	148,850
	December	133,288	125,245	19,316	144,561
1978	January	105,321	114,049	R16,237	R130,285
	February	84,738	111,144	R17,038	R128,182
	March	77,187	112,333	R17,247	R129,580
	April	88,137	116,076	R17,365	R133,441
	May	100,787	118,922	R16,954	R135,876
	June	110,913	R120,155	R17,566	R137,721
	July	R109,860	R121,459	R17,693	R139,152
	August	112,185	119,421	17,215	136,636

*Coal includes petroleum coke.

**Primarily residual fuel oil.

***Primarily middle distillates.

****As of December 31.

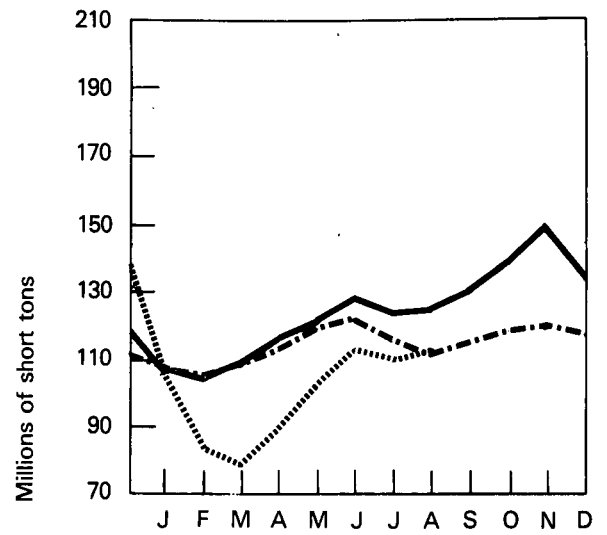
R=Revised data.

Source: Federal Power Commission Form 4, "Monthly Powerplant Report."

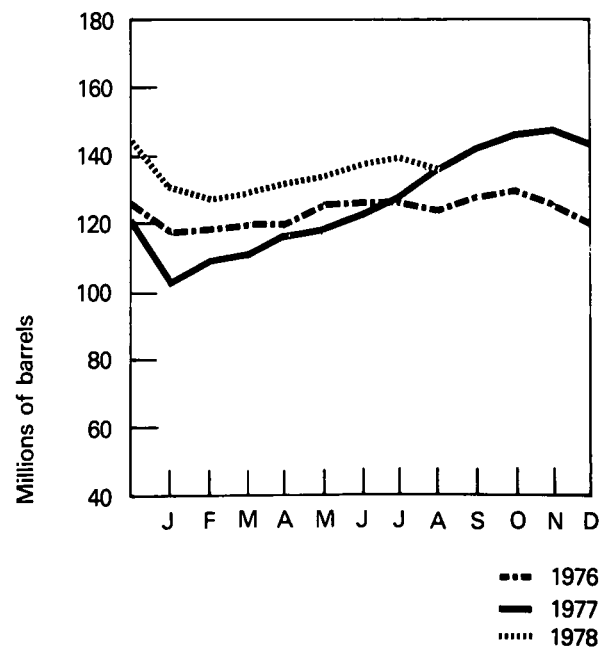
Components may not sum to totals due to independent rounding.

Electric Utilities

Coal Stocks



Oil Stocks



Electric Utilities (Continued)

Electricity Sales*

		Residential	Commercial	Industrial	Other**	Total
		Millions of kilowatt hours				
1972	TOTAL	538,609	359,265	640,978	56,309	1,595,161
1973	TOTAL	579,231	388,266	686,085	59,326	1,712,909
1974	TOTAL	578,184	384,826	684,875	58,039	1,705,924
1975	TOTAL	584,711	401,665	675,270	68,153	1,729,799
1976	January	60,126	34,955	57,463	6,359	158,903
	February	54,264	33,809	58,064	5,855	151,992
	March	47,041	32,520	60,322	5,967	145,850
	April	43,563	31,813	59,967	5,386	140,729
	May	41,044	32,538	61,133	5,473	140,188
	June	44,131	35,325	62,654	5,371	147,481
	July	53,702	39,489	62,388	5,856	161,435
	August	57,349	39,933	63,921	5,829	167,032
	September	53,459	38,817	64,382	6,125	162,783
	October	44,751	34,981	64,028	5,649	149,409
	November	46,682	33,622	63,002	5,802	149,108
	December	56,751	35,838	62,640	5,886	161,115
	TOTAL	602,863	423,640	739,964	69,558	1,836,025
1977	January	65,332	37,598	61,481	6,274	170,685
	February	61,423	36,105	60,439	5,770	163,737
	March	50,859	34,248	63,294	6,158	154,559
	April	44,414	33,180	63,278	5,425	146,297
	May	41,568	34,291	65,418	5,613	146,890
	June	48,419	37,658	66,064	5,601	157,742
	July	60,969	41,863	64,622	5,931	173,385
	August	62,440	42,433	66,521	5,837	177,231
	September	57,231	40,845	66,579	5,951	170,606
	October	48,696	36,547	66,442	5,979	157,664
	November	44,962	33,979	64,959	5,866	149,766
	December	55,101	36,047	63,809	6,083	161,040
	TOTAL	641,414	444,794	772,906	70,488	1,929,602
1978	January	65,547	37,942	64,300	6,584	174,373
	February	63,936	37,286	60,817	6,252	168,291
	March	58,194	36,201	61,524	6,032	161,951
	April	46,928	33,484	63,129	5,342	148,883
	May	43,637	33,896	66,745	5,636	149,914
	June	50,577	38,624	69,098	5,821	164,120
	July	61,401	42,607	67,397	6,322	177,727
	TOTAL (7 months)	390,220	260,040	453,010	41,989	1,145,259

*Electricity sales to ultimate consumers.

**Includes street lighting and transportation uses.

R=Revised.

Source: Federal Power Commission Form 5, "Monthly Statement of Electric Operating Revenue and Income."

Nuclear Power

During September, nuclear powerplants generated 22.5 billion* net kilowatt hours, or approximately 12.0 percent of total net domestic electricity production. Nuclear power, used exclusively for electricity generation in the private sector of the economy, is steadily assuming a larger share of total domestic electricity generation. During the first 9 months of the year, nuclear power contributed 12.2 percent of total electricity production, compared with 11.8 percent for the first 9 months of 1977. The 67 fully operational domestic reactors** performed at 65 percent of maximum dependable capacity during the month, down from 73 percent during August.

At the end of September, 211 reactors totaling 210,000 megawatts of capacity were in some stage of operation, construction, or planning, with most units either under construction or operational. Units not yet operational are generally of larger capacity than those presently operational.

Second to the United States, Japan now operates the largest commercial nuclear power program in the free world, with a total gross nuclear capacity of 8,780 megawatts. England, with 8,130 megawatts, is third followed by West Germany with 6,410 megawatts.

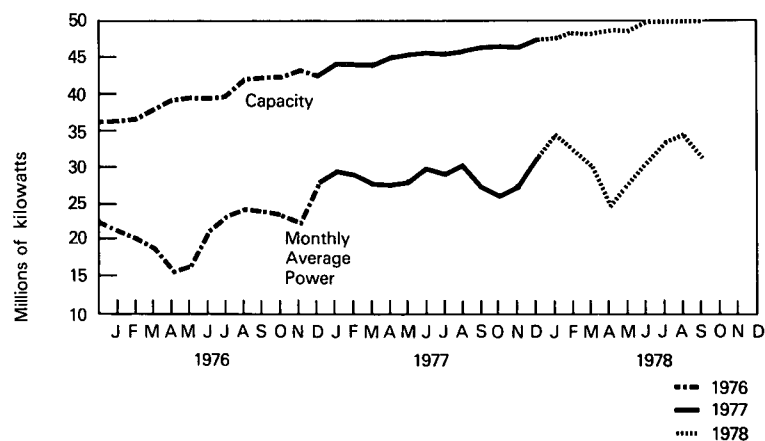
*Preliminary data.

**Does not include 3 recently completed reactors in start-up testing prior to full commercial operation.

U.S. Nuclear Powerplant Operations*

		Maximum Dependable Capacity**	Average Power	Percent of Total Domestic Electricity Generation
		Thousands of net kilowatts		
1972 AVERAGE		7,726	6,174	3.1
1973 AVERAGE		13,850	8,760	4.5
1974 AVERAGE		29,921	13,011	6.1
1975 AVERAGE		35,671	19,692	9.0
1976	January	36,750	21,638	9.0
	February	36,879	20,657	9.2
	March	38,072	18,808	8.5
	April	39,763	15,142	7.2
	May	39,902	16,034	7.6
	June	39,781	21,885	9.1
	July	40,168	23,802	9.5
	August	42,067	24,681	9.8
	September	42,896	24,014	10.5
	October	42,877	23,327	10.6
	November	43,673	22,408	9.5
	December	42,877	28,380	11.5
AVERAGE		40,642	21,756	9.4
1977	January	44,316	29,774	11.3
	February	44,282	29,168	12.0
	March	44,289	27,785	12.2
	April	45,131	27,631	12.7
	May	45,222	27,687	12.2
	June	45,991	29,885	11.9
	July	45,984	29,335	11.0
	August	45,982	30,578	11.6
	September	46,051	27,264	11.1
	October	46,088	25,593	11.4
	November	46,088	27,025	11.6
	December	47,133	31,350	12.9
AVERAGE		45,554	28,640	11.8
1978	January	47,167	34,722	13.1
	February	48,080	32,490	12.6
	March	48,062	30,173	13.0
	April	48,926	24,451	11.0
	May	48,924	27,441	11.6
	June	49,714	30,813	11.8
	July	49,719	33,612	12.3
	August	49,815	R34,407	R12.4
	September***	49,815	31,235	12.0
AVERAGE	(8 months)	48,916	31,047	12.2

U.S. Nuclear Powerplants



*Includes all units authorized to generate commercial electricity, including 3 units in startup testing (see definitions) and those owned by the Government.

**See definitions.

***Preliminary data.

R=Revised data.

Sources: Capacity data for units in commercial operation or startup testing and Average Power for September 1978 from Nuclear Regulatory Commission. Remaining data from FPC Form 4, "Monthly Powerplant Report."

Status of Nuclear Powerplants—September 30, 1978

Status	Number of Plants				Design Capacity	
	Boiling Water Reactors	High Temperature Gas Reactors	Pressurized Water Reactors	Other**	Total	Net Electrical Megawatts
In operation or startup testing*	26	1	41	2	70	51,000
Construction permit granted	28	0	61	0	89	97,000
Construction permit pending	8	0	26	3	37	42,000
Orders placed for plant	2	0	7	0	9	11,000
Publicly announced	—	—	—	6	6	7,000
TOTAL	64	1	135	11	211	***209,000

*Does not include the Indian Point 1 reactor which is in indefinite shutdown status.

**Includes two dual-purpose Department of Energy-owned reactors, both operating. Also includes 1 Liquid Metal Fast Breeder Reactor and 9 announced intentions to order for which a reactor type has not been chosen.

***Total may not equal sum of components due to independent rounding.

Nuclear Power Generation by Non-Communist Countries—September 1978

Country	Number of Reactors*	Capacity Thousands of gross electrical kilowatts	Electricity Generation Millions of gross kilowatt hours	Generation of Electricity Percent of Design Capacity Used			
				Percent of Design Capacity Used			
				September 1978	Year** 1975 1976 1977		
Asia							
Japan	15	8,780	3,486	55	46	57	41
India	3	620	226	51	46	58	51
Pakistan	1	140	0	0	46	41	28
Taiwan	1	640	316	69	—	—	—
South Korea	1	590	282	67	—	—	—
Europe							
Belgium	3	1,740	1,239	99	83	65	78
England***	31	8,130	2,692	40	57	62	55
Finland	1	440	304	96	—	—	92
France	13	5,890	2,714	64	68	59	52
Germany (FR)	10	6,410	2,194	48	72	57	64
Italy	4	1,490	297	28	69	69	61
Netherlands	2	520	362	96	73	84	81
Spain	3	1,120	709	88	77	77	67
Sweden	6	3,850	1,796	65	44	55	59
Switzerland	3	1,060	734	96	84	85	87
North America							
Canada†	†8	4,790	2,526	79	64	80	76
United States	69	52,360	23,376	62	56	55	64
South America							
Argentina	1	370	265	100	85	86	55
Total or Average	175	98,930	43,514	61	58	59	62

*Includes fully operational units and those in startup testing which generated electricity during, or prior to, the current month.

Capacity and generation figures are shown as gross values, as opposed to net values shown in previous tables of this chapter.

**Averages are computed for those units in operation, including startup units beginning with first month of electricity generation.

***September figures for 21 units are based on a 5-week period; figures for remaining units are for 30 days.

†September figures are based on 4-week period.

Source: *Nucleonics Week* magazine.

U.S. Uranium Enrichment—September 1978

	Domestic Customers	Foreign Customers	Total
Separative work performed (in metric tons of separative work units)	935.024	929.752	1,864.776
Cost (in millions of dollars)	72.979	71.947	144.926
Product quantity (in metric tons of uranium)	255.210	229.341	484.551
Feed requirement (in metric tons of uranium)	1,265.724	1,200.333	2,466.057

Source: U.S. Department of Energy.

Summary of Monthly Fuel Cycle—August 1978

Fuel Cycle Activity	Product	Processed Material ¹	Percent Utilization of Industry Capacity	Energy Content of Processed Material ²	Energy Consumed in Fuel Cycle Activity ³	Cost Contribution to Electric Power ⁴
		MTU except where noted		Billion Btu		Mills per kilowatt hour
Milling	Yellowcake (U ₃ O ₈) Deliveries	991	94	360,000	545	1.27
Conversion	Uranium Hexafluoride (UF ₆) Deliveries	947	⁵ 66	323,000	142	0.16
Enrichment	Enriched UF ₆ Deliveries	301 (1,235 MT-SWU)	(⁶)	616,000	2,742	1.53
Fabrication	Finished Fuel Assemblies Shipped	108	NA	220,000	30	0.47
Powerplant Operation	Electricity Generated	25,717 (million kWhe)	72	274,000	1,310 (million kWhe)	10.93
Spent Fuel	Stored at Reactor Site	27	—	—	—	
	Stored at Non-Reactor Sites	0	—	—	—	⁷ 1.57

¹ Units of measure are discussed in Explanatory Notes 11 and 12.

² Assumes 25,000 MWD/MTU for heat content of enriched uranium and a 6.1 feed to product ratio at the enrichment plant.

³ Energy requirements for processing are obtained from U.S.A.E.C. Report No. WASH 1248.

⁴ Cost contribution is computed from unit prices paid for current month's production and requirement for a model 1000 MWe reactor operating at 65 percent capacity factor. Because of the long lead time required for nuclear fuel processing, the sum of numbers in this column does not necessarily reflect the fuel cost of current electricity production.

⁵ Figure for conversion utilization represents material shipped.

⁶ ERDA's enrichment plants are presently operating at maximum utilization of available electric power, with the excess production being placed in the "preproduction stockpile" in anticipation of high demand for enriched uranium in the 1980's.

⁷ Figure represents current industry estimate for cost of spent fuel shipment, reprocessing, and waste disposition, exclusive of cost credits for recovered uranium and plutonium.

NA=Not available.

Source: DOE.

Price

Crude Oil

Due to the initiation of a new data collection system, no refiners' acquisition cost of crude oil is yet available for July or August of this year.

The average price paid by first purchasers for lower tier crude oil was \$5.51 per barrel in August, up 33 cents from the price a year ago. The price of Alaskan North Slope oil was \$5.11 per barrel in August, a decrease of 30 cents below the price during July 1978. The average price paid for all first purchases of domestic crude oil in August was \$9.05 per barrel, up 43 cents from the price 1 year earlier.

Motor Gasoline

Preliminary data from the EIA-79 survey indicates that on a national average basis, leaded regular gasoline at full serve pumps sold for an average of 65.5 cents per gallon (0.9 cent above the price in July.) The price for unleaded regular gasoline at full serve pumps increased 1.0 cent to 69.8 cents per gallon, 4.3 cents above the price for leaded regular gasoline at full serve pumps. Self-serve leaded and unleaded regular gasoline prices were 61.2 and 66.3 cents per gallon, respectively.

On a regional basis, average selling prices for leaded regular gasoline at full serve pumps ranged from 63.8 cents in Region 6 to 71.2 cents in Region 9. At self serve pumps leaded regular gasoline prices ranged from 57.7 cents in Region 6 to 65.3 cents in Region 10. The average price for unleaded regular gasoline at full serve pumps ranged from 67.6 cents in Region 6 to 75.0 cents in Region 9. At self-serve pumps, average prices ranged from 62.2 cents in Region 6 to 69.6 cents in Region 9.

Heating Oil

The average price of heating oil sold to residential customers in August was unchanged at 48.2 cents per gallon. This was a 2.2 cent increase over the price a year ago, and a 9.2 cent increase from that of May 1976, the last month this product was subject to price controls.

Residual Fuel Oil

The average retail price for all grades of No. 6 residual fuel oil in August was \$12.34 per barrel, a 66-cent decrease from the price 1 year earlier. The average wholesale price for all grades of No. 6 residual fuel oil in August was \$10.70 per barrel, \$1.36 per barrel lower than the price 1 year earlier.

Aviation Fuels

The average retail price of kerosene-type aviation fuel increased slightly in August to 39.3 cents per gallon, an increase of 3.3 cents from the price 1 year earlier.

Liquefied Petroleum Gases

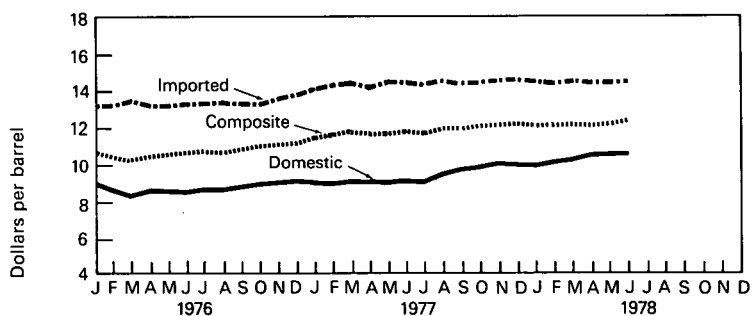
The average wholesale price of butane sold in August was 21.8 cents per gallon, a decrease of 4.3 cents from the price 1 year earlier. The average price of propane dropped 0.3 cent in August to 22.7 cents per gallon, 2.8 cents lower than the price 1 year earlier.

Crude Oil

Refiner Acquisition Cost*

		Domestic	Imported	Composite
		Dollars per barrel		
1974	AVERAGE	7.18	12.52	9.07
1975	AVERAGE	8.39	13.93	10.38
1976	January	9.14	13.27	10.76
	February	8.67	13.26	10.54
	March	8.48	13.51	10.44
	April	8.66	13.39	10.63
	May	8.62	13.41	10.66
	June	8.60	13.48	10.88
	July	8.72	13.51	10.97
	August	8.65	13.58	10.78
	September	8.95	13.47	11.08
	October	9.13	13.49	11.20
	November	9.23	13.58	11.26
	December	9.25	13.71	11.32
	AVERAGE	8.84	13.48	10.89
1977	January	9.23	14.11	11.64
	February	9.24	14.50	11.80
	March	9.32	14.54	11.88
	April	9.21	14.36	11.75
	May	9.21	14.62	11.87
	June	9.34	14.63	11.98
	July	9.32	14.44	11.90
	August	9.54	14.68	12.01
	September	9.75	14.50	12.01
	October	9.95	14.56	12.12
	November	10.17	14.61	12.18
	December	10.15	14.76	12.27
	AVERAGE	9.55	14.53	11.96
1978	January	10.14	14.52	12.13
	February	10.25	14.41	12.19
	March	10.46	14.57	12.23
	April	10.55	14.40	12.20
	May	10.60	14.51	12.35
	June	10.60	14.54	12.48

Crude Oil Refiner Acquisition Cost



*See Explanatory Note 13.

**Preliminary data.

Sources: 1974 through January 1976—Form FEO-96 "Monthly Cost Allocation Report;" February 1976 forward—FEA Form P110-M-1 "Refiners' Monthly Cost Allocation Report." Data provided by the Economic Regulatory Administration.

Crude Oil (Continued)

Domestic Prices at the Wellhead¹

		Old	New	Domestic Average			Lower Tier²	Upper Tier²	Actual Stripper³	Actual Domestic Average⁴	Imputed Domestic Average⁴				
		Dollars per barrel			1977	January	5.17	11.44	13.27	8.50	8.28				
1974	AVERAGE	5.03	10.13	6.87	February	5.18	11.39	13.32	8.57	8.33					
					March	5.15	11.03	13.31	8.45	8.19					
					April	5.15	10.97	13.28	8.40	8.14					
					May	5.18	10.98	13.26	8.49	8.23					
1975	AVERAGE	5.03	12.03	7.67	June	5.16	10.92	13.28	8.44	8.17					
1976	January	5.02	12.99	8.63											
					Lower Tier²	Upper Tier²	Domestic Average			Lower Tier²	Upper Tier²	Actual Stripper³	Alaskan North Slope⁵	Naval Petroleum Reserves⁶	Actual Domestic Average⁴
	February	5.05	11.47	7.87 <th>July</th> <td>5.16</td> <td>11.00</td> <td>13.31</td> <td>6.84</td> <td>12.21</td> <td>8.48</td> <td>8.21</td>	July	5.16	11.00	13.31	6.84	12.21	8.48	8.21			
	March	5.07	11.39	7.79 <th>August</th> <td>5.18</td> <td>10.93</td> <td>13.95</td> <td>6.91</td> <td>12.29</td> <td>8.62</td> <td>8.25</td>	August	5.18	10.93	13.95	6.91	12.29	8.62	8.25			
	April	5.07	11.52	7.86 <th>September</th> <td>5.20</td> <td>11.20</td> <td>14.01</td> <td>6.98</td> <td>12.33</td> <td>8.63</td> <td>8.26</td>	September	5.20	11.20	14.01	6.98	12.33	8.63	8.26			
	May	5.13	11.55	7.89 <th>October</th> <td>5.23</td> <td>11.42</td> <td>14.01</td> <td>6.66</td> <td>12.38</td> <td>8.72</td> <td>8.36</td>	October	5.23	11.42	14.01	6.66	12.38	8.72	8.36			
	June	5.15	11.60	7.99 <th>November</th> <td>5.24</td> <td>11.63</td> <td>13.98</td> <td>5.73</td> <td>12.40</td> <td>8.72</td> <td>8.35</td>	November	5.24	11.63	13.98	5.73	12.40	8.72	8.35			
	July	5.19	11.59	8.04 <th>December</th> <td>5.25</td> <td>11.76</td> <td>13.98</td> <td>5.73</td> <td>12.36</td> <td>8.77</td> <td>8.40</td>	December	5.25	11.76	13.98	5.73	12.36	8.77	8.40			
	August	5.18	11.62	8.03 <th>AVERAGE</th> <td>5.19</td> <td>11.22</td> <td>13.59</td> <td>6.35</td> <td>12.34</td> <td>8.57</td> <th colspan="2"></th>	AVERAGE	5.19	11.22	13.59	6.35	12.34	8.57				
1976	September	5.17	11.65	13.21	8.39	8.19	1978	January	5.28	11.78	13.89	5.30	12.38	8.68	8.34
							February	5.29	11.81	13.90	5.68	12.46	8.84	8.48	
							March	5.34	11.87	13.97	5.00	12.60	8.80	8.41	
							April	5.35	11.94	13.95	5.15	12.67	8.82	8.44	
							May	5.38	11.98	13.93	4.87	12.70	8.81	8.43	
							June	5.46	12.08	13.95	5.63	13.08	9.05	8.68	
							July	5.46	12.16	R13.95	5.41	13.07	8.97	8.62	
							August⁷	5.51	12.21	13.93	5.11	13.04	9.05	8.67	
							AVERAGE	5.13	11.71	12.16	8.19				

¹ See Explanatory Note 14.

² See Definitions.

³ Stripper oil was exempt from price controls beginning September 1, 1976. From February through August 1976 stripper oil was subject to upper tier price ceilings.

⁴ The actual domestic average price represents the average price at which all domestic crude oil is purchased. The imputed domestic average price is the average price used to establish ceiling prices for domestic crude oil in accordance with the provisions of the Energy Conservation and Production Act. It is calculated as the weighted average of lower tier, upper tier, and an imputed stripper crude oil price. The imputed stripper crude oil price is equal to \$11.63 per barrel plus the difference between the composite price of crude oil in August 1976 (excluding stripper oil) and the composite price of crude oil in the month of measurement (excluding stripper oil).

⁵ Alaskan North Slope (ANS) crude oil prices are treated as Upper Tier for determining the applicable wellhead ceiling prices. ANS is included in both the Actual Domestic Average and the Imputed Domestic Average price determinations.

⁶ The Naval Petroleum Reserves (NPR) are exempt from pricing regulations but have been reported here as Upper Tier prior to July 1977. NPR is included in the Actual Domestic Average price determinations, but not in the Imputed Domestic Average.

⁷ Preliminary data based on early reports.

R= Revised data.

Sources: 1974 through January 1976—Form FEA-90 "Crude Petroleum Production Monthly Report;" February 1976 forward—FEA Form P124-M-O "Domestic Crude Oil Purchasers Report." Data provided by the Economic Regulatory Administration.

Crude Oil (Continued)

Percentages of Domestic Production Sold at the Wellhead

		Old Oil	New Oil	Released	Stripper		
1975	January*	58	19	10	12		
	February*	61	17	9	12		
	March	60	18	10	12		
	April	61	17	9	12		
	May	62	17	8	13		
	June	63	16	8	13		
	July	62	16	8	14		
	August	63	16	7	14		
	September*	63	15	7	14		
	October	63	16	7	14		
	November	64	15	7	14		
	December	63	16	7	14		
	AVERAGE	62	16	8	13		
1976	January	54	21	10	15		
		Lower Tier		Upper Tier			
	February	56	30	—	14		
	March	57	29	—	14		
	April	57	29	—	14		
	May	57	29	—	14		
	June	56	29	—	15		
	July	56	30	—	14		
	August	56	30	—	14		
		Lower Tier	Upper Tier		Stripper		
	September	53.4	33.7		12.9		
	October	52.4	34.7		12.9		
	November	49.9	36.6		13.4		
	December	50.1	36.4		13.6		
	AVERAGE	54.4	31.5		14.1		
1977	January	50.6	36.7		12.7		
	February	49.5	37.2		13.3		
	March	49.2	37.2		13.6		
	April	49.5	36.9		13.6		
	May	48.4	37.6		14.0		
	June	48.8	37.0		14.2		
		Lower Tier	Upper Tier		Stripper	Alaskan North Slope**	Naval Petroleum Reserve**
	July	46.75	36.59		13.30	2.58	0.75
	August	43.31	36.65		13.32	5.79	0.91
	September	42.78	34.07		13.14	9.06	0.91
	October	42.23	34.58		12.92	9.09	1.15
	November	41.41	34.67		13.00	9.84	1.05
	December	40.42	34.61		13.00	10.92	1.03
	AVERAGE	45.92	36.11		13.32	4.14	0.51
1978	January	41.73	34.19		12.69	10.17	1.19
	February	40.78	34.35		13.68	9.94	1.23
	March	39.24	34.06		13.98	11.76	0.92
	April	37.94	34.04		13.72	13.26	1.02
	May	38.16	34.03		13.76	13.05	.97
	June	36.79	35.01		13.89	13.45	.84
	July	R37.49	R34.30		R13.53	R13.69	.96
	August***	36.52	34.39		14.41	13.70	.95

*Totals do not add to 100 due to rounding.

**See footnotes 5 and 6 of previous table.

***Preliminary.

R=Revised data.

Sources: January 1975 through January 1976—Form FEA-90 "Crude Petroleum Production Monthly Report;" February 1976 through August 1976—FEA Form P124-M-0 "Domestic Crude Oil Purchasers Report" for Lower Tier percentages and EIA estimates for Upper Tier percentages; September 1976 forward—FEA Form P124-M-0 "Domestic Crude Oil Purchasers Report." Data provided by the Economic Regulatory Administration.

Crude Oil (Continued)

Estimated FOB Cost of Imports from Selected Countries*

		Algeria	Canada	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	U.A. Emirates	Venezuela
		Dollars per barrel								
1976	January	12.96	NA	12.77	11.61	12.34	12.85	11.67	11.91	11.15
	February	12.89	NA	12.77	11.48	12.34	12.85	11.64	11.93	11.61
	March	12.93	NA	12.78	11.45	12.34	12.94	11.71	11.91	11.26
	April	12.98	NA	12.74	11.58	12.39	12.95	11.72	11.94	11.38
	May	13.01	NA	12.76	11.58	12.45	12.97	11.61	11.85	11.10
	June	13.02	NA	12.74	11.62	12.40	12.97	11.64	11.92	11.03
	July	13.06	NA	12.79	11.64	12.64	13.11	11.58	11.89	10.87
	August	13.06	NA	12.75	11.61	12.52	13.08	11.58	11.92	11.19
	September	13.12	NA	12.73	11.66	12.66	13.06	11.55	11.97	11.53
	October	13.09	NA	12.79	11.63	12.70	13.25	11.65	11.92	11.41
	November	13.12	NA	12.71	11.62	12.74	13.25	11.62	11.96	11.58
	December	13.21	NA	12.82	11.78	12.83	13.36	11.65	12.16	11.77
1977	January	14.03	NA	13.41	12.03	13.64	14.11	11.92	12.53	12.91
	February	14.31	NA	13.43	12.36	13.89	14.24	12.04	12.33	13.30
	March	14.29	NA	13.58	12.79	13.87	14.32	12.24	12.51	12.98
	April	14.34	NA	13.55	12.79	13.98	14.51	12.23	12.53	12.62
	May	14.31	NA	13.57	12.78	13.93	14.56	12.23	12.56	12.60
	June	14.35	NA	13.55	12.68	13.94	14.55	12.21	12.44	12.53
	July	14.43	NA	13.61	12.78	13.99	14.52	12.40	12.70	12.48
	August	14.48	NA	13.63	12.80	13.95	14.54	12.56	13.15	12.37
	September	14.43	NA	13.64	12.73	13.99	14.56	12.72	13.20	12.55
	October	14.43	NA	13.65	12.79	13.93	14.48	12.70	13.22	12.72
	November	14.37	NA	13.65	12.75	13.88	14.53	12.73	13.33	12.71
	December	14.44	NA	13.61	12.71	13.85	14.45	12.77	13.27	12.56
1978	January	14.29	NA	13.67	12.62	13.77	14.18	12.70	13.23	12.73
	February	14.21	NA	13.62	12.68	13.91	14.18	12.78	13.18	12.61
	March	14.19	NA	13.62	12.68	13.75	14.13	12.80	13.20	12.86
	April	14.09	NA	13.61	12.68	13.62	13.91	12.74	13.23	12.54
	May	13.99	NA	13.51	12.65	13.59	13.90	12.71	13.05	12.13
	June	14.06	NA	13.63	12.58	13.59	13.90	12.67	13.28	12.32
	July	14.06	NA	13.63	12.70	13.67	13.89	12.65	13.26	12.66
	August	14.05	NA	13.63	12.63	13.66	13.86	12.66	13.27	12.23

NA= Not available.

*The FOB cost excludes all costs related to insurance and transportation. See Explanatory Note 15.

Source: FEA Form F701-M-0 "Transfer Pricing Report." Data provided by the Economic Regulatory Administration.

Crude Oil (Continued)

Estimated Landed Cost of Imports From Selected Countries*

		Algeria	Canada	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	U.A. Emirates	Venezuela
		Dollars per barrel								
1975	AVERAGE	12.72	12.72	13.79	12.21	12.35	12.62	12.30	12.87	11.65
1976	January	13.56	12.95	13.89	13.01	13.52	13.61	13.18	13.50	11.60
	February	13.57	13.24	13.94	12.87	13.45	13.52	13.21	13.36	12.09
	March	13.83	13.30	13.94	12.77	13.36	13.62	13.18	13.37	11.71
	April	13.73	13.61	13.78	12.91	13.38	13.60	13.11	13.18	11.95
	May	13.47	13.62	13.84	12.82	13.59	13.62	13.05	13.39	11.61
	June	13.75	14.19	13.84	13.00	13.38	13.78	13.14	13.09	11.55
	July	13.77	13.79	13.80	12.76	13.53	13.81	13.02	13.45	11.44
	August	13.91	13.78	13.78	13.09	13.51	13.87	13.03	13.23	11.77
	September	14.03	13.70	13.80	12.78	13.72	13.82	12.87	13.44	11.98
	October	13.81	13.71	13.84	12.73	13.83	13.99	12.87	13.22	11.84
	November	13.84	13.59	13.77	12.58	13.73	13.95	13.01	13.18	12.01
	December	14.14	13.52	13.75	12.69	13.79	14.11	13.02	13.29	12.19
	AVERAGE	13.81	13.57	13.82	12.82	13.58	13.80	13.04	13.30	11.80
1977	January	14.80	13.92	14.42	13.16	14.64	14.97	13.22	13.56	13.29
	February	15.18	13.74	14.57	13.56	15.12	15.12	13.32	13.46	13.76
	March	15.08	14.34	14.64	13.94	14.88	15.13	13.50	13.80	13.41
	April	15.21	14.02	14.70	13.95	15.12	15.37	13.41	13.78	13.19
	May	15.20	14.94	14.59	13.94	14.91	15.40	13.49	13.85	13.10
	June	15.34	14.49	14.63	13.81	14.92	15.37	13.39	13.72	13.06
	July	15.29	13.91	14.75	13.84	14.88	15.39	13.64	14.20	13.02
	August	15.24	14.24	14.65	13.99	14.70	15.25	13.72	14.36	12.82
	September	15.29	14.14	14.62	13.77	14.99	15.34	14.01	14.41	13.08
	October	15.41	14.00	14.67	13.83	14.81	15.31	13.85	14.56	13.16
	November	15.05	14.52	14.73	13.88	14.73	15.23	13.94	14.19	13.11
	December	15.25	14.27	14.58	13.95	14.81	15.21	13.99	14.48	12.99
	AVERAGE	15.20	14.21	14.63	13.80	14.87	15.25	13.61	14.04	13.13
1978	January	15.01	14.37	14.60	13.91	14.63	14.88	13.93	14.40	13.00
	February	14.91	14.31	14.53	13.75	14.85	14.90	13.96	14.07	12.93
	March	14.74	13.56	14.56	14.06	14.62	14.89	14.07	14.44	13.22
	April	14.91	13.50	14.61	13.90	14.43	14.63	13.85	14.42	12.89
	May	14.70	14.39	14.50	13.94	14.56	14.72	13.86	14.20	12.49
	June	14.80	15.07	14.58	13.92	14.45	14.61	13.86	14.48	12.72
	July	14.83	14.64	14.73	13.93	14.65	14.64	13.81	14.29	12.41
	August	14.83	14.78	14.66	13.76	14.64	14.59	13.84	14.49	12.70

*See Explanatory Note 16.

Source: FEA Form F701-M-O "Transfer Pricing Report." Data provided by the Economic Regulatory Administration.

Crude Oil (Continued)

		Entitlement Price* (Dollars)	National Old Oil (or Domestic Crude Oil) Supply Ratio*	Crude Oil Entitlement Benefit* (Dollars)
1976	January	8.09	.309	2.50
	February	7.85	.352	2.76
	March	7.89	.358	2.82
	April	7.85	.356	2.79
	May	7.82	.356	2.78
	June	7.91	.328	2.59
	July	7.80	.314	2.45
	August	8.02	.319	2.56
	September	7.80	.296	2.31
	October	7.84	.293	2.30
	November	7.90	.273	2.16
	December	7.97	.263	2.10
1977	January	8.30	.266	2.21
	February	8.53	.267	2.28
	March	8.71	.273	2.38
	April	8.69	.285	2.48
	May	8.77	.280	2.46
	June	8.65	.273	2.36
	July	8.68	.258	2.24
	August	8.75	.266	2.33
	September	8.75	.250	2.19
	October	8.78	.250	2.20
	November	8.61	.239	2.06
	December	8.65	.233	2.02
1978	January	8.61	.240	2.07
	February	8.48	.230	1.95
	March	8.47	.225	1.91
	April	8.35	.218	1.82
	May	8.26	.197	1.63
	June	8.19	.191	1.56
	July	8.16	.184	1.50
	August	8.06	.165	1.33

*See Definitions.

Source: FEA-P102-M-1 "Domestic Crude Oil Entitlements Program Refiners Monthly Report." Data provided by the Economic Regulatory Administration.

Unrecouped Costs for Refined Products for 30 Largest Refiners¹

		Distillate ²	Motor Gasoline	Aviation Jet Fuel ³	Other Products	Total
		Millions of dollars				
1975	January	254	431	—	672	1,357
	February	300	418	—	790	1,508
	March	282	452	—	966	1,700
	April	302	485	—	807	1,594
	May	292	370	—	771	1,433
	June	284	266	—	785	1,334
	July	233	219	—	624	1,075
	August	280	344	—	583	1,208
	September	347	335	—	661	1,342
	October	338	245	—	673	1,255
	November	426	275	—	796	1,497
	December	446	211	—	826	1,483
1976	January	336	242	131	515	1,224
	February	279	336	145	456	1,216
	March	263	316	163	456	1,198
	April	237	398	180	524	1,339
	May	264	632	161	446	1,503
	June	—	628	135	349	1,112
	July	—	587	129	384	1,100
	August	—	679	125	352	1,156
	September	—	619	134	340	1,093
	October	—	733	151	372	1,256
	November	—	796	168	368	1,332
	December	—	723	139	317	1,179
1977	January	—	901	166	325	1,392
	February	—	1,038	187	303	1,528
	March	—	956	180	287	1,423
	April	—	1,029	194	343	1,566
	May	—	967	224	351	1,542
	June	—	957	234	344	1,535
	July	—	869	210	391	1,470
	August	—	764	279	455	1,498
	September	—	784	186	500	1,470
	October	—	879	248	511	1,638
	November	—	904	218	538	1,660
	December	—	818	185	470	1,473
1978	January	—	1,055	191	420	1,666
	February	—	1,265	198	435	1,898
	March	—	1,065	175	378	1,618
	April	—	1,013	170	400	1,583
	May	—	849	186	500	1,535
	June	—	718	180	562	1,460
	July ⁴	—	730	139	517	1,386
	August ⁴	—	442	88	516	1,046

R=Revised data.

¹Beginning with February 1977, data for only 29 refiners are included in this table due to the merger between Skelly Oil Company and Getty Oil Company.

²Includes No. 2 heating oil and No. 2 diesel fuel only. After May 1976, reporting of the distillate bank is no longer required due to decontrol of middle distillates.

³Prior to January 1976 refiners were not required to maintain separate banks for aviation jet fuel.

⁴Preliminary.

Source: January 1975 through January 1976—Form FEO-96 "Monthly Cost Allocation Report;" February 1976 forward—FEA Form P110-M-1 "Refiners' Monthly Cost Allocation Report;" July 1978 forward EIA 14 "Refiners' Monthly Cost Allocation Report." Data provided by the Economic Regulatory Administration.

Motor Gasoline

Leaded Regular Gasoline—Full Serve

Leaded Regular Gasoline—Self Serve

		Average Retail Dealer Selling Price	Average Retail Dealer Margin	Average Retail Dealer Selling Price	Average Retail Dealer Margin
		Cents per gallon, including tax		Cents per gallon, including tax	
1975	January	52.4	9.0	NA	NA
	February	52.5	9.0	NA	NA
	March	52.6	8.8	NA	NA
	April	53.5	8.6	NA	NA
	May	54.3	8.3	NA	NA
	June	55.6	8.1	NA	NA
	July	58.7	8.4	NA	NA
	August	59.2	8.4	NA	NA
	September	59.3	8.2	NA	NA
	October	58.9	8.2	NA	NA
	November	58.4	8.2	55.4	5.5
	December	58.0	8.1	54.9	5.3
AVERAGE		56.2	8.4	55.1	5.4
1976	January	57.7	8.1	54.7	5.4
	February	57.1	8.3	53.8	5.4
	March	56.6	8.3	53.2	5.3
	April	56.6	8.0	53.2	4.9
	May	57.4	7.4	54.4	4.5
	June	59.0	7.4	56.3	4.8
	July	59.6	7.4	56.6	4.6
	August	60.1	7.4	56.7	4.4
	September	60.2	7.6	56.5	4.3
	October	60.2	7.6	56.5	4.4
	November	60.0	7.8	56.4	4.5
	December	59.9	7.9	56.1	4.5
AVERAGE		58.7	7.8	55.4	4.8
1977	January	59.9	7.9	56.2	4.5
	February	60.7	7.9	57.1	4.4
	March	61.3	7.8	57.7	4.4
	April	62.2	8.1	58.4	4.4
	May	62.9	7.9	58.9	4.2
	June	63.4	8.1	59.3	4.3
	July	63.4	8.3	59.2	4.4
	August	63.4	8.4	58.8	4.2
	September	63.3	8.6	58.5	4.2
	October	63.2	8.8	58.2	4.2
	November	63.1	8.7	58.1	4.0
	December	63.3	9.0	58.2	4.2
AVERAGE		62.6	8.3	58.2	4.3
1978	January	61.7	NA	57.2	NA
	February	61.6	NA	57.1	NA
	March	61.7	NA	57.0	NA
	April	61.9	NA	57.2	NA
	May	62.5	NA	58.2	NA
	June	63.4	NA	59.0	NA
	July	64.6	NA	60.6	NA
	August	65.5	NA	61.2	NA

*Preliminary data.

NA = Not available.

Sources: Lundberg Survey, Inc. for 1975 through 1977; EIA-8, "Retail Motor Fuels Service Station Survey" for January 1978 through June 1978; EIA-79, "Monthly Motor Gasoline Service Station Survey" for July 1978 forward.

Unleaded Regular Gasoline—Full Serve

Unleaded Regular Gasoline —Self Serve

		Average Retail Dealer Selling Price	Average Retail Dealer Margin		
		Cents per gallon, including tax			
1975	January	NA	NA	NA	NA
	February	56.1	NA	NA	NA
	March	56.2	NA	NA	NA
	April	57.1	NA	NA	NA
	May	57.9	NA	NA	NA
	June	58.8	NA	NA	NA
	July	61.5	NA	NA	NA
	August	62.0	NA	NA	NA
	September	62.1	NA	NA	NA
	October	62.1	NA	NA	NA
	November	62.0	NA	NA	NA
	December	61.4	NA	NA	NA
	AVERAGE	59.8	NA	NA	NA
1976	January	61.2	NA	NA	NA
	February	60.6	NA	NA	NA
	March	60.1	NA	NA	NA
	April	60.4	NA	NA	NA
	May	61.1	NA	NA	NA
	June	62.9	NA	NA	NA
	July	63.2	NA	NA	NA
	August	63.9	NA	NA	NA
	September	64.0	NA	NA	NA
	October	64.0	NA	NA	NA
	November	63.9	NA	NA	NA
	December	63.9	NA	NA	NA
	AVERAGE	62.5	NA	NA	NA
1977	January	64.0	NA	NA	NA
	February	65.0	NA	NA	NA
	March	65.4	NA	NA	NA
	April	66.1	NA	NA	NA
	May	66.7	NA	NA	NA
	June	67.2	NA	NA	NA
	July	67.3	NA	NA	NA
	August	67.0	9.5	63.7	6.5
	September	67.0	9.5	63.7	6.5
	October	67.0	9.7	63.6	6.6
	November	67.0	9.6	63.4	6.4
	December	67.2	9.9	63.6	6.7
	AVERAGE	66.4	9.6	63.6	6.5
1978	January	65.8	NA	61.6	NA
	February	65.7	NA	61.8	NA
	March	65.8	NA	61.8	NA
	April	66.1	NA	62.0	NA
	May	66.9	NA	62.9	NA
	June	67.8	NA	64.0	NA
	July	68.8	NA	65.6	NA
	August	69.8*	NA	66.3*	NA

*Preliminary data.
NA = Not available.
R=Revised data.

Sources: Lundberg Survey, Inc. for 1975 through 1977; EIA-8, "Retail Motor Fuels Service Station Survey" for January 1978 through June 1978; EIA-79, "Monthly Motor Gasoline Service Station Survey" for July 1978 forward.

Leaded Premium Gasoline—Full Serve

		Average Retail Dealer Selling Price	Average Retail Dealer Margin
	Cents per gallon, including tax		
1975	January	57.1	NA
	February	57.3	NA
	March	57.5	NA
	April	58.2	NA
	May	59.0	NA
	June	60.3	NA
	July	63.1	NA
	August	63.6	NA
	September	63.8	NA
	October	63.4	NA
	November	63.2	NA
	December	62.9	NA
	AVERAGE	60.9	NA
1976	January	62.7	NA
	February	62.1	NA
	March	61.6	NA
	April	61.6	NA
	May	62.4	NA
	June	63.9	NA
	July	64.6	NA
	August	65.2	NA
	September	65.3	NA
	October	65.2	NA
	November	65.2	NA
	December	65.0	NA
	AVERAGE	63.8	NA
1977	January	65.2	NA
	February	66.1	NA
	March	66.8	NA
	April	67.6	NA
	May	68.4	NA
	June	68.9	NA
	July	68.9	NA
	August	68.9	9.9
	September	68.9	10.0
	October	68.9	10.1
	November	68.9	10.1
	December	69.1	10.2
	AVERAGE	68.1	10.1
1978	January	67.7	NA
	February	67.7	NA
	March	68.0	NA
	April	68.3	NA
	May	69.0	NA
	June	70.0	NA
	July	71.1	NA
	August	72.0*	NA

Leaded Premium Gasoline —Self Serve

	Average Retail Dealer Selling Price	Average Retail Dealer Margin
Cents per gallon, including tax		
NA	NA	NA
NA	NA	NA
NA	NA	NA
NA	NA	NA
NA	NA	NA
NA	NA	NA
NA	NA	NA
NA	NA	NA
NA	NA	NA
NA	NA	NA
NA	NA	NA
NA	NA	NA
59.6	NA	NA
58.9	NA	NA
58.4	NA	NA
58.5	NA	NA
59.6	NA	NA
61.4	NA	NA
61.8	NA	NA
62.0	NA	NA
61.9	NA	NA
61.9	NA	NA
61.9	NA	NA
61.6	NA	NA
60.7	NA	NA
61.7	NA	NA
62.7	NA	NA
63.3	NA	NA
64.1	NA	NA
64.8	NA	NA
65.2	NA	NA
65.2	NA	NA
65.8	7.2	7.2
65.8	7.3	7.3
65.7	7.3	7.3
65.6	7.3	7.3
65.8	7.4	7.4
64.7	7.3	7.3
63.5	NA	NA
64.0	NA	NA
63.9	NA	NA
64.3	NA	NA
65.3	NA	NA
66.2	NA	NA
R68.2	NA	NA
68.8*	NA	NA

*Preliminary data.

NA = Not available.

R=Revised data.

Sources: Lundberg Survey, Inc. for 1975 through 1977; EIA-8, "Retail Motor Fuels Service Station Survey" for January 1978 through June 1978; EIA-79, "Monthly Motor Gasoline Service Station Survey" for July 1978 forward.

Motor Gasoline (Continued)

Average Retail Dealer Selling Prices for Major* and Nonmajor Retail Dealers—July and August 1978

Leaded Regular Gasoline—Full Serve

Cents per gallon, including tax

	Selling Price	
	July	August**
Major	66.1	66.6
Nonmajor	62.0	62.5
*National Average	64.6	65.5

Unleaded Regular Gasoline—Full Serve

Cents per gallon, including tax

	Selling Price	
	July	August**
Major	69.9	70.6
Nonmajor	65.6	65.9
National Average	68.8	69.8

Leaded Regular Gasoline—Self Serve

	Selling Price	
	July	August**
Major	61.8	62.0
Nonmajor	59.2	60.0
National Average	60.6	61.2

Unleaded Regular Gasoline—Self Serve

	Selling Price	
	July	August**
Major	66.9	67.3
Nonmajor	62.6	63.5
National Average	65.6	66.3

Leaded Premium Gasoline—Full Serve

	Selling Price	
	July	August**
Major	72.4	73.0
Nonmajor	67.2	67.6
National Average	71.1	72.0

Unleaded Premium Gasoline—Full Serve

	Selling Price	
	July	August**
Major	73.7	74.2
Nonmajor	72.1	***
National Average	73.5	74.1

Leaded Premium Gasoline—Self Serve

	Selling Price	
	July	August**
Major	70.0	70.4
Nonmajor	64.8	65.7
National Average	68.3	68.8

Unleaded Premium Gasoline—Self Serve

	Selling Price	
	July	August**
Major	70.6	71.2
Nonmajor	***	***
National Average	70.3	71.2

*See explanatory Note 17.

**Preliminary data.

***Insufficient data.

R = Revised data.

Source: EIA-79, "Monthly Motor Gasoline Service Station Survey" for July 1978.

Average Regional Retail Dealer Selling Prices for Full Serve Leaded Regular and Unleaded Regular Gasoline—July and August 1978

DOE Region**	Leaded Regular		Unleaded Regular	
	Cents per gallon, including tax		Cents per gallon, including tax	
	July	August*	July	August*
1	R63.9	65.0	R68.0	68.9
2	R63.5	64.1	R67.9	68.7
3	R64.5	65.1	R68.3	68.9
4	R63.5	64.2	R68.5	69.1
5	R64.4	65.5	R68.4	69.6
6	63.1	63.8	66.8	67.6
7	R63.4	64.9	R67.3	68.6
8	R67.4	68.5	R70.4	71.4
9	R70.2	71.2	R74.0	75.0
10	R67.5	68.9	R71.7	72.9
National Average	64.6	65.5	R68.8	69.8

Average Regional Retail Dealer Selling Prices for Self Serve Leaded Regular and Unleaded Regular Gasoline—July and August 1978

DOE Region**	Leaded Regular		Unleaded Regular	
	Cents per gallon, including tax		Cents per gallon, including tax	
	July	August*	July	August*
1	R60.9	61.9	R66.0	66.7
2	62.6	63.9	R67.9	68.4
3	R60.4	60.8	R66.2	66.7
4	R59.2	59.7	R64.5	64.9
5	R61.0	61.5	R64.9	66.0
6	56.9	57.7	R61.5	62.2
7	R60.3	61.5	R64.8	65.5
8	61.3	62.3	R64.7	65.5
9	63.9	64.0	69.3	69.6
10	R64.9	65.3	R68.6	69.2
National Average	60.6	61.2	65.6	66.3

*Preliminary data.

**DOE regions are defined in Explanatory Note 18.

R = Revised data.

Source: EIA-79, "Monthly Motor Gasoline Service Station Survey" for July and August 1978.

Motor Gasoline (Continued)

Average Refiner Retail Gasoline Selling Prices*

		Regular	Premium	Unleaded
		Cents per gallon, including tax		
1975	July	55.7	NA	57.4
	August	55.9	59.8	58.0
	September	55.6	59.5	57.6
	October	55.0	59.1	57.1
	November	54.1	58.5	56.3
	December	53.7	58.1	56.0
1976	January	53.5	57.9	55.8
	February	53.4	57.8	55.9
	March	52.3	56.6	54.6
	April	52.7	56.8	55.0
	May	54.1	58.2	56.3
	June	55.7	60.1	57.9
	July	55.9	60.3	58.4
	August	55.7	60.3	58.5
	September	55.6	60.1	58.1
	October	55.4	59.9	58.1
	November	55.2	59.8	57.9
	December	55.0	59.6	57.8
1977	January	54.9	59.5	57.7
	February	55.5	60.2	58.9
	March	56.0	61.0	59.5
	April	57.1	61.9	60.6
	May	57.7	62.7	61.4
	June	58.0	62.7	61.8
	July	58.2	63.2	61.8
	August	57.9	63.1	61.8
	September	57.6	62.9	61.5
	October	57.2	62.7	61.2
	November	57.0	62.6	61.1
	December	56.9	62.7	61.0
1978	January	56.8	62.6	60.9
	February	56.5	62.4	60.7
	March	56.5	62.5	60.7
	April	56.8	62.8	61.0
	May	57.1	63.6	61.8
	June	57.5	64.2	61.9

NA = Not available.

*Retail refers to the price at which refiner-owned and operated retail stations sell gasoline to the consumer.

**Preliminary data.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

Aviation Fuels

AVIATION FUELS (Cents per gallon)

		Aviation Gasoline		Naphtha-Type*	Kerosene-Type	
		Wholesale	Retail	Retail	Wholesale	Retail
1975	July	40.6	40.6	31.4	29.8	29.2
	August	41.3	42.1	30.8	32.1	29.5
	September	41.2	39.9	30.3	31.5	29.6
	October	41.1	41.2	30.2	31.7	30.0
	November	39.7	42.1	30.6	31.6	30.2
	December	40.9	40.9	30.7	31.9	30.5
1976	January	41.4	41.2	31.0	30.6	31.3
	February	41.2	42.0	31.1	31.1	31.2
	March	41.1	41.9	30.9	31.2	30.7
	April	41.2	42.5	30.5	31.9	30.5
	May	42.1	43.1	30.6	33.0	30.2
	June	42.6	42.3	31.5	32.1	30.3
	July	43.6	44.2	31.3	32.9	30.8
	August	43.7	44.1	31.7	32.1	31.1
	September	43.6	44.7	32.1	32.5	31.4
	October	43.6	43.8	32.1	32.5	31.9
	November	43.4	43.9	32.8	33.4	32.4
	December	43.5	43.7	32.9	34.7	32.2
1977	January	43.4	44.1	33.4	34.6	33.2
	February	44.7	45.0	34.0	37.1	34.1
	March	45.0	45.7	34.5	35.9	34.6
	April	46.0	47.2	34.3	35.9	34.9
	May	46.6	47.8	34.3	36.3	35.1
	June	46.7	47.6	35.1	36.8	35.7
	July	47.0	48.7	35.6	37.1	35.8
	August	47.9	50.1	35.5	36.6	36.0
	September	47.9	49.1	35.6	37.1	37.0
	October	48.1	49.0	35.7	37.3	37.3
	November	48.3	47.8	35.8	37.9	37.5
	December	47.8	48.1	36.2	37.2	37.8
1978	January	47.8	49.1	36.9	37.9	38.5
	February	48.3	48.4	36.5	38.3	38.2
	March	49.1	49.4	36.9	37.8	38.4
	April	49.5	51.5	36.8	38.1	38.5
	May	50.1	50.0	37.3	38.3	38.6
	June	50.4	52.8	37.2	38.9	38.9
	July	51.4	52.4	37.6	39.0	38.9
	August**	52.0	54.0	37.5	38.9	39.3

*Nearly all naphtha-type fuels are sold directly to the Defense Fuel Supply Center. Consequently, wholesale prices are not applicable.

**Preliminary data.

Note: Wholesale refers to the price of aviation fuel sold to refiners and resellers, including bulk plants, branded and unbranded jobbers, and aviation fuel distributors. Retail refers to the price of aviation fuel sold to ultimate consumers, including commercial airline and military accounts.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

Heating Oil

Residential Heating Oil Prices*

		Average Selling Price**	Average Purchase Price**	Average Distributor Margin**
		Cents per gallon		
1974	AVERAGE	34.7	26.9	
1975	January	37.4	29.1	8.3
	February	37.0	28.7	8.3
	March	36.6	28.4	8.2
	April	36.1	29.3	6.8
	May	36.7	30.0	6.7
	June	37.1	30.3	6.8
	July	37.2	30.6	6.6
	August	38.0	31.2	6.8
	September	38.4	31.0	7.4
	October	39.3	31.8	7.5
	November	39.4	32.1	7.3
	December	40.1	32.4	7.7
	AVERAGE	37.7	31.2	
1976	January	40.2	32.0	8.8
	February	40.2	32.0	8.8
	March	39.4	31.5	9.2
	April	39.0	31.3	9.1
	May	39.0	31.4	8.6
	June	39.3	31.8	8.6
	July	39.3	32.3	8.0
	August	39.8	32.2	8.5
	September	40.2	32.6	8.7
	October	40.7	33.1	8.6
	November	41.9	33.4	9.1
	December	43.0	34.5	9.2
1977	January	44.4	35.8	9.3
	February	45.3	36.7	9.4
	March	45.8	37.0	9.5
	April	45.9	37.1	9.6
	May	45.7	37.1	9.5
	June	45.7	37.1	9.3
	July	45.8	37.2	9.3
	August	46.0	37.3	9.2
	September	46.2	37.4	9.4
	October	46.7	37.5	9.8
	November	47.6	37.3	10.2
	December	47.9	37.2	10.4
1978	January	48.5	38.1	10.5
	February	48.6	37.8	11.0
	March	48.6	37.6	11.1
	April	48.6	37.6	11.1
	May	48.3	37.6	11.0
	June	48.2	37.7	10.7
	July	48.2	37.7	10.7
	August***	48.2	37.9	10.5

Refiners' Average Selling Prices to Resellers and Retailers

1976	January	31.1
	February	30.9
	March	30.4
	April	30.1
	May	30.3
	June	30.5
	July	30.9
	August	31.0
	September	31.2
	October	31.7
	November	32.5
	December	33.6
	ANNUAL	31.4
1977	January	34.7
	February	35.4
	March	35.9
	April	35.8
	May	35.7
	June	35.7
	July	35.8
	August	35.7
	September	35.5
	October	36.0
	November	36.3
	December	36.6
	ANNUAL	35.7
1978	January	36.8
	February	36.4
	March	36.2
	April	36.0
	May	36.2
	June	35.8
	July	35.9
	August***	36.1

*See Explanatory Note 19.

**Average selling prices, purchase prices, and dealer margins represent sales for residential heating oil only.

***Preliminary data.

NA = Not available.

Sources: 1974 through December 1975—Form CLC-92 "No. 2 Heating Oil Monthly Price Adjustment Report;" January 1976 forward—FEA Form P112-M-1/EIA-9 "No. 2 Heating Oil Supply/Price Monitoring Report."

Residential Heating Oil Prices by Region

		Census Region									
		New England	Mid- Atlantic	South Atlantic	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific	
		Cents per gallon									
1976	January	41.5	40.0	39.6	38.3	37.8	38.2	35.0	41.2	41.6	
	February	41.4	40.3	39.4	38.0	37.7	38.3	34.4	41.0	42.1	
	March	41.5	39.8	39.2	37.0	36.7	37.6	34.5	40.4	41.9	
	April	41.2	40.0	38.9	37.1	35.9	37.3	34.6	40.3	40.8	
	May	41.1	39.7	38.2	37.1	35.6	37.3	34.0	40.4	42.1	
	June	40.9	41.1	39.1	37.7	37.2	37.3	34.3	40.3	42.8	
	July	40.7	39.8	39.1	37.9	36.9	37.3	34.4	40.1	45.0	
	August	41.5	40.3	39.5	38.2	37.2	37.7	34.3	39.7	44.7	
	September	41.9	40.8	37.5	38.3	38.0	38.8	34.8	41.1	46.0	
	October	42.3	41.4	40.4	39.0	38.5	38.7	35.1	42.1	46.0	
	November	43.3	42.4	42.1	40.1	39.8	39.5	36.3	42.8	46.5	
	December	44.4	43.6	42.9	41.5	41.0	41.9	36.3	42.7	43.8	
1977	January	45.8	44.9	44.2	43.2	43.1	43.0	36.9	43.4	44.6	
	February	46.6	45.8	45.7	43.9	43.4	44.0	38.8	44.2	45.2	
	March	47.1	46.3	45.5	44.4	43.8	44.6	40.2	44.7	45.9	
	April	47.2	46.5	45.5	44.8	43.3	44.2	40.8	44.8	46.4	
	May	47.0	46.4	45.6	44.7	43.7	43.7	40.7	44.8	46.5	
	June	47.1	46.4	45.7	44.7	44.0	43.3	41.2	45.8	46.8	
	July	47.1	46.4	45.7	44.7	44.2	44.2	41.2	44.2	47.9	
	August	47.4	46.6	45.6	44.7	43.7	44.5	41.0	44.9	48.2	
	September	47.7	46.7	45.8	45.0	44.2	44.9	41.1	44.9	47.2	
	October	48.0	47.3	46.4	45.3	43.9	45.4	41.1	45.4	47.4	
		DOE Region*									
		1	2	3	4	5	6	7	8	9	10
1978	November	48.5	48.1	47.0	46.1	45.7	NA	44.2	45.4	44.9	47.4
	December	48.9	48.6	47.5	46.6	46.1	NA	44.5	45.7	44.5	47.3
	January	49.4	49.2	48.1	47.5	46.4	NA	44.5	45.2	44.7	47.4
	February	49.5	49.3	48.4	47.6	46.4	NA	45.2	45.5	45.6	47.5
	March	49.4	49.3	48.4	47.7	46.5	NA	44.4	45.0	47.0	47.8
	April	49.3	49.2	48.2	47.1	46.4	NA	44.6	45.0	45.1	47.6
	May	49.3	49.1	47.7	46.7	46.3	NA	44.7	45.0	44.4	47.4
	June	49.2	49.1	47.8	46.8	46.0	NA	44.8	45.4	43.9	47.7
	July	49.1	49.0	47.6	46.7	46.4	NA	45.0	45.8	43.5	48.1
	August**	49.1	49.0	47.6	47.4	46.3	NA	45.1	45.5	44.8	47.3

*DOE regions are defined in Explanatory Note 18.

**Preliminary Data.

NA=Not available. Data for Region 6 are based on a sample of less than four reporting firms.

R=Revised data.

Note: Average regional distributor purchase prices for heating oil for the period January 1975 through February 1976 are published on page 70 of the October 1977 issue of the *Monthly Energy Review*.

Source: FEA Form P112-M-1/EIA-9 "No. 2 Heating Oil Supply/Price Monitoring Report."

No. 1 Diesel Fuel Prices

		Wholesale**	Retail**
		Cents per gallon, excluding tax	
1975	July	30.1	37.7
	August	30.8	38.2
	September	31.5	36.9
	October	33.1	35.4
	November	33.3	35.0
	December	34.2	35.5
1976	January	33.8	37.1
	February	33.6	35.3
	March	33.9	34.8
	April	34.2	35.4
	May	34.5	37.5
	June	34.7	37.9
	July	35.0	38.1
	August	36.0	38.2
	September	35.3	37.7
	October	36.3	36.4
	November	35.7	37.0
	December	35.5	36.7
	AVERAGE	34.6	36.1
1977	January	37.1	37.8
	February	38.4	39.2
	March	39.0	39.6
	April	39.7	40.6
	May	39.5	41.7
	June	40.2	41.2
	July	40.3	41.3
	August	40.9	41.3
	September	39.0	41.1
	October	40.1	39.8
	November	40.9	40.4
	December	39.5	41.4
	AVERAGE	39.6	39.8
1978	January	39.8	41.3
	February	39.6	41.6
	March	39.6	41.0
	April	40.2	42.5
	May	40.3	42.3
	June	40.2	43.1
	July	39.7	43.4
	August*	39.7	44.0

*Preliminary.

**Wholesale refers to the price of diesel fuel sold to other refiners and resellers, including branded jobbers, unbranded jobbers, and commercial accounts. Retail refers to the price at which company-owned and -operated retail dealers sell to consumers.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

Residual Fuel Oil

RESIDUAL FUEL OIL (Dollars per barrel)													
NO. 5				NO. 6								BUNKER "C"	
				0.0 to 0.3 percent sulfur		0.31 to 1.0 percent sulfur		Greater than 1.0 percent sulfur		Total			
		Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail
1975	July	10.19	11.28	11.57	12.86	10.90	12.05	10.25	10.59	10.66	11.70	7.88	10.54
	August	10.19	11.04	11.53	13.22	10.85	12.34	9.72	10.53	10.49	11.89	8.76	10.43
	September	10.58	11.07	11.75	12.94	10.63	11.65	9.87	10.52	10.48	11.52	8.93	10.29
	October	10.15	11.12	11.50	12.98	10.37	12.09	9.75	10.38	10.30	11.69	8.88	10.31
	November	10.90	11.27	12.21	12.96	10.33	12.03	9.90	10.34	10.47	11.68	9.01	10.43
	December	10.83	11.64	11.89	12.87	10.37	11.83	9.65	10.06	10.24	11.42	9.07	10.15
1976	January	11.08	11.63	12.13	12.39	10.62	11.61	9.57	10.23	10.53	11.35	8.75	10.35
	February	10.55	11.57	12.42	12.78	10.87	11.84	9.70	10.35	10.73	11.52	8.53	10.27
	March	10.41	11.89	12.36	12.81	11.05	11.80	9.56	10.21	10.74	11.43	8.59	10.35
	April	10.21	11.58	11.44	12.34	10.86	11.77	9.53	10.28	10.38	11.43	8.66	10.12
	May	9.87	11.49	11.71	11.87	10.80	11.40	9.47	9.89	10.11	10.95	8.75	10.65
	June	9.91	11.23	11.71	12.24	10.33	11.36	9.73	10.03	10.12	11.04	8.57	10.10
	July	10.06	11.70	11.73	12.12	10.22	11.36	9.83	10.04	10.25	11.04	9.23	10.34
	August	9.78	11.48	11.85	12.29	10.45	11.46	9.61	10.22	10.20	11.20	8.93	9.98
	September	10.36	11.37	11.85	12.50	10.33	11.55	10.04	10.28	10.35	11.30	9.22	10.05
	October	10.40	11.86	11.96	12.85	11.08	11.99	10.00	10.73	10.75	11.82	9.57	10.81
	November	11.04	12.04	12.41	13.15	11.57	12.21	10.40	10.99	11.16	11.95	10.31	10.88
	December	11.49	12.64	13.18	13.29	11.80	12.76	11.04	11.48	11.87	12.44	9.95	11.24
1977	January	12.00	13.20	14.06	14.34	12.79	13.68	11.51	12.32	12.45	13.32	10.34	11.89
	February	12.28	13.63	14.00	14.60	12.91	14.06	12.04	12.74	12.69	13.71	10.24	12.00
	March	12.15	13.76	14.00	14.58	13.47	14.51	11.62	12.70	12.68	13.84	9.97	11.74
	April	11.62	13.26	12.88	14.63	13.05	14.10	11.27	12.50	12.04	13.61	10.14	11.75
	May	11.54	12.69	13.56	14.48	11.90	13.73	11.05	12.15	11.64	13.42	9.97	11.41
	June	11.25	13.10	13.12	14.28	11.88	13.27	11.10	11.93	11.72	13.02	10.30	11.39
	July	11.24	12.67	13.31	14.38	11.73	13.12	11.02	12.06	11.62	13.01	10.91	11.44
	August	11.61	12.75	13.32	14.15	11.83	13.08	11.89	12.01	12.06	13.00	11.08	11.58
	September	11.70	12.84	13.35	14.33	11.79	13.11	11.78	12.19	12.03	12.94	11.20	11.72
	October	11.52	13.14	13.38	14.30	11.69	13.15	11.71	12.33	12.10	13.15	10.98	11.87
	November	11.29	13.16	12.85	14.24	11.66	12.93	11.44	12.15	11.76	12.96	10.42	11.66
	December	11.64	13.53	12.87	13.95	11.38	12.60	10.77	11.95	11.28	12.70	11.27	11.37
1978	January	11.45	13.36	12.72	14.19	11.56	12.70	10.71	12.00	11.33	12.79	9.73	11.15
	February	11.75	13.35	12.20	14.05	11.64	12.42	10.58	11.75	11.25	12.53	9.66	10.84
	March	11.41	13.62	12.73	13.99	11.94	12.75	10.48	11.70	11.36	12.63	8.95	10.47
	April	11.01	13.44	12.72	14.51	12.26	12.95	10.84	11.85	11.57	12.87	8.76	10.28
	May	11.23	13.66	12.67	14.21	12.01	12.88	10.79	11.74	11.70	12.79	9.89	11.05
	June	10.77	12.98	12.37	13.99	11.83	12.58	10.82	11.60	11.41	12.50	9.90	10.91
	July	10.44	12.58	11.26	13.93	11.29	12.01	10.51	11.48	10.86	12.21	9.76	10.68
	August*	10.58	13.25	11.29	14.10	10.81	11.98	10.46	11.61	10.70	12.34	9.89	11.31

*Preliminary.

R=Revised data.

Note: Wholesale refers to the price of residual fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and other residual dealers. Retail refers to the price at which residual fuel oil is sold to ultimate consumers such as utility, industrial, institutional, commercial, and residential accounts.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

Propane and Butane

Wholesale Propane and Butane Prices*

		Propane	Butane
		Cents per gallon	
1975	July	17.9	17.5
	August	18.8	18.2
	September	19.8	19.7
	October	19.9	20.4
	November	20.2	20.5
	December	20.6	20.2
	AVERAGE (6 months)	19.7	19.4
1976	January	21.2	20.6
	February	21.0	21.6
	March	20.1	21.3
	April	19.4	20.9
	May	19.0	21.6
	June	19.5	21.4
	July	19.9	22.2
	August	20.2	22.3
	September	20.6	22.0
	October	20.9	22.7
	November	21.4	22.4
	December	22.1	23.6
	AVERAGE	20.6	21.9
1977	January	22.9	23.0
	February	24.0	24.3
	March	23.7	24.9
	April	23.6	24.2
	May	24.5	25.8
	June	24.5	25.6
	July	24.9	26.2
	August	25.5	26.1
	September	25.9	27.4
	October	26.8	26.3
	November	26.5	25.8
	December	26.7	25.8
	AVERAGE	25.0	25.4
1978	January	27.0	25.9
	February	26.5	25.1
	March	25.6	24.9
	April	24.4	23.9
	May	23.7	22.8
	June	23.3	22.9
	July	23.0	22.1
	August	22.7	21.8

*Wholesale refers to the price at which refiners, resellers, retailers, and gas plants sell to one another, including sales to agricultural and industrial accounts. Excludes butane/propane mixtures.

Source: FEA Form P302-M-1, "Petroleum Industry Monthly Report for Product Prices."

Natural Gas

Natural Gas Prices Reported by Major Interstate Pipeline Companies

		PURCHASES			SALES		
		From Domestic Producers	From Canadian and Foreign Sources	Total Purchases	To Industrial Users*	To Resellers**	Total Sales
Cents per thousand cubic feet							
1975	January	30.4	104.0	35.8	67.8	70.9	71.2
	February	29.5	105.9	35.2	70.1	74.0	74.3
	March	33.5	102.5	38.8	70.4	77.7	77.8
	April	32.8	102.8	38.3	71.1	82.3	81.9
	May	34.7	100.6	39.8	71.1	83.7	82.8
	June	35.3	98.9	40.2	72.2	85.1	83.9
	July	36.7	101.1	41.7	73.9	84.6	83.6
	August	35.5	141.0	43.3	73.4	86.5	85.1
	September	36.5	141.1	44.4	72.8	85.9	84.7
	October	36.0	140.1	44.3	77.2	85.9	85.4
	November	36.5	162.5	46.7	77.8	86.7	86.4
	December	35.8	161.8	45.9	80.7	87.6	87.5
1976	January	38.3	164.0	48.7	88.2	90.1	90.6
	February	39.7	165.3	50.1	88.2	93.8	94.1
	March	39.4	164.5	49.9	86.8	92.0	92.2
	April	40.5	164.3	51.5	89.0	96.5	96.4
	May	42.2	165.0	52.7	87.4	99.2	98.5
	June	43.7	166.6	54.0	89.8	99.4	98.8
	July	43.8	168.4	53.8	94.6	102.7	102.0
	August	56.4	167.7	65.7	98.2	105.3	104.6
	September	68.6	183.7	77.9	103.9	93.1	94.7
	October	57.6	190.1	69.3	106.7	105.8	106.2
	November	52.6	182.4	63.6	113.5	106.7	107.5
	December	54.0	189.4	65.7	133.1	117.8	118.6
1977	January	59.4	201.8	71.6	143.2	124.3	125.4
	February	63.4	199.7	76.4	130.6	130.4	131.0
	March	69.8	200.4	83.4	129.3	132.1	132.5
	April	65.3	190.7	76.5	128.1	131.0	131.1
	May	69.1	191.3	80.5	128.1	133.9	133.5
	June	69.2	188.6	79.6	125.3	135.1	134.2
	July	72.1	187.7	81.8	134.3	135.9	135.7
	August	71.1	185.5	81.5	133.9	134.0	134.0
	September	71.8	194.7	84.0	131.8	135.7	135.4
	October	74.2	211.9	87.4	133.9	135.6	135.6
	November	74.3	214.2	87.1	134.9	141.7	141.5
	December	73.9	216.5	86.8	138.5	132.2	133.1
1978	January	74.0	211.1	86.4	150.4	138.2	139.2
	February	76.3	212.7	89.3	158.2	141.5	142.8
	March	79.3	212.5	90.1	149.7	144.9	145.7
	April	80.3	222.0	92.5	149.8	147.7	148.2
	May	81.2	218.5	92.4	149.0	149.7	150.0
	June	83.6	220.5	94.3	148.3	153.0	152.7
	July	84.2	226.7	95.1	149.5	155.7	155.0

*Represents direct sales by pipeline companies to industrial users. Does not include sales to industrial users by resellers.

**Includes the cost of gas to the distributing utility at entrance of distribution system or point of receipt.

R=Revised data.

Source: Federal Power Commission Form 11, "Natural Gas Pipeline Company Monthly Statement."

Natural Gas (Continued)

Intrastate Natural Gas Prices for Selected States by Type of Contract*

	California		Kansas		Louisiana		Oklahoma		Texas	
	New Contracts	Renegotiated or Amended	New Contracts	Renegotiated or Amended	New Contracts	Renegotiated or Amended	New Contracts	Renegotiated or Amended	New Contracts	Renegotiated or Amended
Cents per thousand cubic feet										
1975										
January	75.00	76.89	55.30	—	98.04	102.96	95.99	76.03	139.90	164.04
February	—	—	—	—	128.68	113.06	97.30	64.49	154.72	163.11
March	—	—	—	—	115.78	125.89	107.70	55.05	96.66	97.50
April	—	—	64.65	45.24	149.78	134.81	132.58	87.79	160.09	176.32
May	—	—	—	—	126.80	123.53	129.31	106.56	156.72	158.59
June	—	53.68	65.00	—	130.91	129.57	94.22	120.29	165.00	187.54
July	—	65.51	—	—	117.22	125.63	133.87	114.62	183.22	178.22
August	—	75.00	198.24	—	132.87	114.20	136.77	121.21	151.87	132.50
September	—	86.00	152.89	70.38	121.89	141.23	143.73	106.69	169.87	180.77
October	135.53	—	—	—	75.16	117.60	143.09	144.14	168.10	187.30
November	—	—	157.95	139.02	138.42	71.65	140.61	133.15	149.43	182.17
December	—	—	—	80.00	139.64	131.92	132.50	153.86	187.20	140.90
1976										
January	—	83.97	103.81	84.54	138.75	131.23	149.87	109.39	181.05	193.31
February	—	40.00	—	109.68	125.00	145.30	133.72	146.71	176.63	191.54
March	—	—	150.36	—	145.66	155.39	162.83	168.57	178.70	176.44
April	195.00	—	150.00	—	142.99	154.05	162.12	148.30	202.60	152.95
May	122.00	60.39	180.39	149.84	125.54	106.05	156.35	164.02	154.00	197.22
June	—	—	114.45	150.82	147.11	137.67	169.56	168.14	178.01	192.98
July	—	117.15	137.57	150.83	127.55	141.71	148.20	95.00	151.19	176.23
August	—	97.38	—	—	138.70	164.23	151.81	171.49	157.98	198.81
September	—	—	—	125.68	164.10	156.39	164.85	172.00	184.07	197.66
October	—	—	—	111.72	144.64	149.91	163.48	161.16	196.58	188.80
November	—	—	150.82	144.21	—	131.91	162.57	90.73	186.80	182.82
December	—	97.47	160.73	—	194.51	152.45	167.55	175.98	198.71	202.54
1977										
January	—	105.58	155.49	—	155.82	137.65	172.35	167.49	193.36	204.06
February	—	107.27	121.66	—	141.33	120.84	147.86	131.27	185.55	203.22
March	119.79	116.28	148.18	—	219.43	208.97	168.57	168.28	197.14	190.83
April	—	—	137.10	156.38	216.41	150.35	165.61	167.89	192.22	205.44
May	—	107.20	119.00	—	197.53	158.97	156.52	171.09	204.06	201.27
June	—	112.21	91.49	—	180.21	169.61	166.69	169.51	194.54	206.41
July	—	139.02	88.57	174.53	174.90	169.64	172.95	168.25	206.96	202.46
August	—	—	131.97	90.49	177.99	166.66	164.33	158.46	188.96	183.57
September	—	—	—	136.66	163.72	162.49	171.78	172.70	167.14	212.44
October	—	—	—	75.63	201.26	142.88	148.44	175.01	202.73	204.08
November	135.00	136.15	150.39	105.80	—	182.97	166.26	174.78	186.94	199.11
December	—	124.40	147.09	166.59	196.42	154.23	160.32	173.49	207.65	203.32
1978										
January	—	173.80	137.50	184.32	194.38	202.88	169.22	180.65	168.54	211.52
February	—	—	—	163.54	180.37	181.40	165.35	178.74	163.94	211.32
March	—	—	—	203.60	198.62	182.35	175.48	177.37	170.64	196.60
April	—	—	185.36	60.19	201.85	237.64	181.08	166.69	202.35	202.59
May	—	—	—	197.49	198.18	197.07	171.98	175.67	213.52	193.90
June	—	—	—	135.13	—	212.50	138.00	174.68	187.68	205.71

*Prices are for FERC jurisdictional natural gas companies selling more than 1 billion cubic feet per year in interstate commerce.
Source: Federal Power Commission Form 45, "Summary of Intrastate Natural Gas Prices."

Natural Gas (Continued)

Average Retail Prices for Natural Gas Sold to Residential Customers for Heating Use

		Cents per thousand cubic feet
1975	January	141.2
	February	144.7
	March	146.1
	April	150.6
	May	153.7
	June	155.7
	July	154.7
	August	155.4
	September	159.4
	October	160.6
	November	166.2
	December	170.2
1976	January	171.4
	February	175.2
	March	177.0
	April	178.4
	May	180.8
	June	183.2
	July	184.5
	August	185.8
	September	191.2
	October	195.0
	November	198.3
	December	208.3
	AVERAGE	185.8
1977	January	213.8
	February	217.0
	March	219.9
	April	223.7
	May	227.0
	June	227.3
	July	229.9
	August	230.1
	September	230.4
	October	235.1
	November	238.4
	December	237.3
1978	January	241.6
	February	243.0
	March	247.0
	April	248.7
	May	255.2
	June	254.2

Source: Bureau of Labor Statistics.

Utility Fossil Fuels

U.S. Average Delivered Prices of Coal at Utilities

		Contract	Spot
		Dollars per short ton	
1975	January	14.57	28.12
	February	15.71	25.93
	March	15.68	25.02
	April	15.88	24.52
	May	16.45	23.78
	June	16.40	23.36
	July	16.06	22.35
	August	16.65	22.39
	September	16.76	22.46
	October	16.72	22.52
	November	16.79	22.50
	December	16.90	22.40
1976	January	16.53	21.75
	February	17.04	21.23
	March	17.65	21.36
	April	17.76	21.43
	May	18.12	21.17
	June	18.05	20.88
	July	17.93	21.00
	August	18.19	21.35
	September	18.55	21.46
	October	18.49	21.28
	November	18.26	21.56
	December	18.15	21.49
1977	January	17.87	21.93
	February	18.28	22.71
	March	18.75	23.27
	April	18.82	22.41
	May	18.97	23.73
	June	19.03	24.62
	July	19.35	25.13
	August	18.95	24.73
	September	19.75	26.14
	October	20.31	26.83
	November	20.51	27.01
	December	20.49	28.01
1978	January	16.94	30.27
	February	16.50	30.50
	March	18.59	31.52
	April	21.43	30.42
	May	22.23	29.62

Source: Federal Power Commission Form 423.

Utility Fossil Fuels (Continued)

COST OF FOSSIL FUELS DELIVERED TO STEAM ELECTRIC UTILITY PLANTS

All Fossil Fuels*

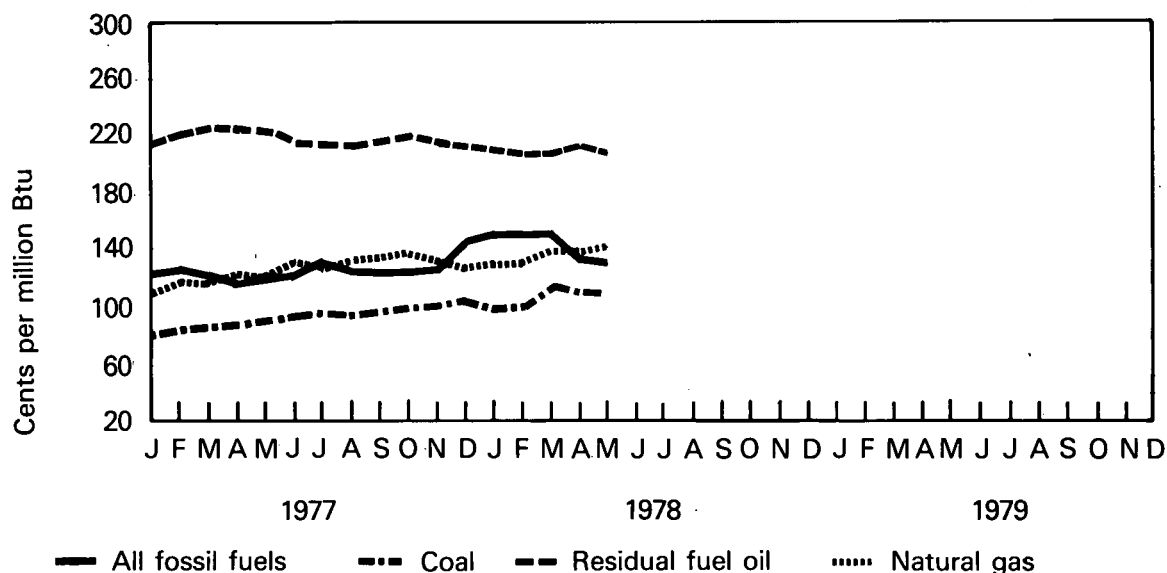
	1977										1978				
Region	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	
	Cents per million Btu														
New England	213.9	215.1	213.3	209.9	206.7	206.8	205.2	202.1	198.9	196.5	196.5	193.9	199.0	195.1	
Middle Atlantic	149.9	149.4	152.1	167.9	158.8	151.3	144.8	142.5	180.2	203.6	199.5	182.0	153.2	150.9	
East North Central	102.6	103.9	107.3	109.7	105.2	106.5	108.8	111.6	134.8	172.2	184.6	172.3	128.5	124.4	
West North Central	79.0	82.5	84.0	87.9	86.2	86.5	89.2	87.4	99.1	102.4	110.9	106.1	95.4	91.1	
South Atlantic	132.7	133.8	137.9	148.9	146.6	143.7	137.6	137.1	156.2	169.0	172.8	169.3	147.5	143.2	
East South Central	100.3	102.3	104.5	110.4	106.6	109.9	112.0	113.0	125.5	140.6	147.1	145.2	126.6	120.0	
West South Central	117.5	117.2	124.3	123.2	122.5	123.2	121.3	119.8	120.9	129.4	130.9	124.7	133.8	133.7	
Mountain	64.3	68.8	69.9	71.8	72.6	73.7	74.7	68.4	73.3	67.6	64.8	67.1	66.0	72.5	
Pacific	217.6	219.0	212.6	221.2	223.8	221.2	238.7	221.9	226.8	221.4	216.8	225.8	232.8	228.7	
NATIONAL AVG.	122.0	123.1	125.1	133.2	129.4	128.6	127.5	125.6	144.0	153.4	154.3	151.6	135.4	132.8	

*See Explanatory Note 20.

R=Revised data.

Source: Federal Power Commission Form 423.

National Average



Coal

Region	1977										1978				
	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		JAN	FEB	MAR	APR	MAY
	Cents per million Btu														
New England	127.9	128.1	130.1	130.6	133.1	134.0	122.4	136.6	137.5	143.2	143.5	150.7	153.4	146.8	
Middle Atlantic	102.5	103.1	107.4	111.7	107.0	106.0	104.6	105.0	127.1	122.4	116.2	124.3	116.4	118.7	
East North Central	93.9	94.3	95.5	99.8	97.3	99.5	101.7	104.7	116.3	134.9	138.5	137.3	117.8	116.6	
West North Central	72.5	75.5	77.0	77.9	77.4	78.5	84.3	81.2	88.7	88.5	94.0	93.5	87.6	86.6	
South Atlantic	108.4	110.9	113.9	119.2	115.9	121.1	122.0	122.8	133.0	129.4	129.4	139.6	130.6	129.1	
East South Central	96.5	95.8	95.0	99.9	98.4	103.1	104.3	107.8	114.0	118.3	131.5	136.0	123.1	116.2	
West South Central	60.2	60.3	63.9	59.2	62.1	64.4	65.2	72.0	68.7	74.0	83.5	67.6	67.0	69.0	
Mountain	42.4	46.3	47.4	43.0	50.1	47.5	51.4	48.8	47.9	42.2	45.6	46.4	48.1	51.3	
Pacific	70.8	70.9	71.2	71.7	71.1	71.3	71.4	70.6	70.5	71.5	71.2	75.0	78.8	78.3	
NATIONAL AVG.	90.1	91.8	93.3	96.2	94.3	98.0	100.5	101.7	106.8	99.6	102.1	113.4	110.9	110.6	

Residual Fuel Oil*

Region	1977										1978				
	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		JAN	FEB	MAR	APR	MAY
	Cents per million Btu														
New England	218.5	223.4	216.2	212.5	211.3	210.2	210.8	206.8	202.3	199.0	193.5	195.3	201.0	195.3	
Middle Atlantic	230.8	227.7	223.1	220.5	218.5	220.8	225.8	213.2	209.7	208.4	207.4	207.8	209.5	207.8	
East North Central	256.3	250.9	248.6	247.1	241.6	264.7	256.5	247.5	248.3	256.4	254.1	262.0	260.0	262.0	
West North Central	298.7	193.6	186.6	179.0	185.0	186.9	185.3	187.2	174.3	177.8	183.0	189.3	179.4	189.3	
South Atlantic	217.8	211.7	210.1	207.2	199.2	211.0	211.4	209.3	205.1	203.6	198.7	198.4	198.2	198.4	
East South Central	180.5	175.7	177.7	175.9	178.3	177.7	186.5	183.8	185.2	180.7	182.0	182.8	180.6	182.8	
West South Central	200.3	198.3	194.3	187.6	188.5	184.2	192.6	192.2	191.6	184.7	183.2	182.0	187.7	182.0	
Mountain	220.6	224.9	215.3	232.5	230.7	216.4	214.3	222.9	223.3	218.9	221.3	226.1	212.3	226.1	
Pacific	235.8	235.2	235.7	240.0	240.1	240.6	241.6	241.3	242.2	243.4	242.7	250.6	256.5	250.6	
NATIONAL AVG.	226.2	227.7	217.8	217.0	213.0	218.3	220.3	217.2	215.0	211.3	207.8	209.6	213.1	209.6	

Natural Gas**

Region	1977										1978				
	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		JAN	FEB	MAR	APR	MAY
	Cents per million Btu														
New England	200.1	195.9	193.9	185.8	187.2	188.1	185.3	187.9	198.2	222.1	222.1	182.1	184.2	184.3	
Middle Atlantic	155.4	154.7	144.2	165.5	162.4	165.1	162.6	154.0	155.0	153.9	159.8	159.3	161.5	162.5	
East North Central	184.7	176.7	177.3	183.5	185.9	183.7	182.3	168.4	176.2	168.4	269.3	338.6	190.6	191.7	
West North Central	96.0	102.9	104.8	106.7	106.8	109.0	103.8	110.3	117.3	109.4	119.4	122.6	118.0	118.5	
South Atlantic	85.7	76.2	74.4	91.1	100.9	91.7	94.2	102.5	94.6	93.9	98.4	97.9	102.9	112.3	
East South Central	154.7	139.7	134.3	148.5	149.9	135.7	138.6	156.0	145.9	139.1	150.1	158.4	150.2	155.2	
West South Central	113.7	116.5	122.1	122.5	123.7	123.7	122.5	120.1	120.2	129.0	128.5	124.9	137.7	135.8	
Mountain	134.9	134.4	132.9	133.3	130.7	149.8	136.9	155.5	159.2	133.8	139.2	146.5	127.5	150.2	
Pacific	204.5	208.9	200.5	211.0	218.8	217.9	219.7	220.6	225.4	212.4	208.6	220.5	220.1	220.4	
NATIONAL AVG.	125.6	125.6	130.5	131.7	135.4	138.4	139.4	134.9	130.6	133.3	135.1	140.2	140.2	143.5	

*See Explanatory Note 20.

**Includes small quantities of coke oven gas, refinery gas, and blast furnace gas.

R=Revised data.

Source: Federal Power Commission Form 423.

International

Petroleum Consumption

Petroleum consumption by the 19 member International Energy Agency (IEA) in June was only 0.3 percent higher than in June 1977. During the first half of 1978, consumption was 2.3 percent higher than the first half of 1977. Most of the increase during early 1978 was due to exceptionally cold weather in the Northern Hemisphere. West Germany and the United Kingdom recorded the largest gains (6.4 and 4.8 percent, respectively). United States, Canada, Italy, and Japan had increases of only 2.5, 2.2, 1.3 and 1.1, respectively. Consumption in France, not an IEA member, increased 5.6 percent during this period.

Crude Oil Production

Crude oil production by the Organization of Petroleum Exporting Countries (OPEC) in August 1978 was 29.6 million barrels per day, an increase of 1.1 percent from August 1977. The decline of 270,000 barrels per day in Saudi Arabian production was more than offset by increases in Kuwait and Iraq. The Arab OPEC share of total OPEC August 1978 production was essentially unchanged from August 1977, falling slightly from 59.7 percent to 59.3 percent. Canadian production of 1.3 million barrels per day equaled the average production for that country during 1976 and 1977. Mexican crude oil production increased for the fifth consecutive month to an all-time high of 1.24 million barrels per day.

During the first 8 months of 1978, Mexican production averaged 1.16 million barrels per day compared to 0.99 million barrels per day during the same 8 months of 1977, a 17.1 percent increase.

Petroleum Consumption

Petroleum Consumption for Major Free World Industrialized Countries

		Total IEA*	Japan	West Germany	France**	United Kingdom	Canada	Italy***
Thousands of barrels per day								
1973	AVG.	33,600	5,000	2,693	2,219	1,974	1,597	1,525
1974	AVG.	32,390	4,872	2,408	2,094	1,857	1,630	1,521
1975	AVG.	31,235	4,568	2,319	1,925	1,633	1,595	1,468
1976	Jan	35,100	4,941	2,464	2,436	1,679	1,785	1,775
	Feb	34,400	5,246	2,497	2,486	1,865	1,754	1,743
	Mar	34,300	5,165	2,747	2,381	1,879	1,747	1,641
	Apr	31,500	4,526	2,339	2,100	1,716	1,518	1,423
	May	29,900	4,218	2,320	1,796	1,417	1,509	1,253
	June	31,300	4,429	2,393	1,593	1,416	1,560	1,236
	July	31,100	4,416	2,624	1,629	1,346	1,531	1,355
	Aug	31,100	4,461	2,515	1,668	1,296	1,585	1,372
	Sept	32,200	4,517	2,521	1,974	1,501	1,514	1,604
	Oct	32,300	4,523	2,391	1,904	1,568	1,560	1,464
	Nov	35,900	5,160	2,700	2,236	1,750	1,822	1,393
	Dec	39,100	5,846	2,571	2,712	1,869	2,008	1,779
	AVG.	33,180	4,786	2,507	2,075	1,627	1,658	1,503
1977	Jan	37,700	5,433	2,393	2,519	1,830	1,793	1,696
	Feb	38,600	6,025	2,446	2,386	1,844	1,912	1,823
	Mar	35,000	5,539	2,523	2,109	1,818	1,660	1,573
	Apr	32,800	4,714	2,431	2,043	1,670	1,523	1,326
	May	31,300	4,314	2,364	1,846	1,545	1,520	1,268
	June	32,900	4,484	2,475	1,715	1,477	1,598	1,340
	July	31,800	4,716	2,382	1,349	1,321	1,499	1,251
	Aug	32,700	4,709	2,469	1,390	1,371	1,689	1,140
	Sept	33,400	4,742	2,567	1,783	1,580	1,522	1,502
	Oct	33,300	4,664	2,324	1,882	1,570	1,628	1,405
	Nov	34,300	5,093	2,649	2,181	1,925	1,720	1,605
	Dec	37,900	5,800	2,719	2,512	1,903	1,943	1,817
	AVG.	34,300	5,015	2,478	1,973	1,665	1,666	1,476
1978	Jan	36,600	5,245	2,461	2,646	1,852	1,797	1,755
	Feb	40,100	6,180	3,013	2,601	1,929	1,976	1,859
	Mar	37,000	5,622	2,610	2,237	1,870	1,730	1,570
	Apr	34,000	4,805	2,577	2,045	1,819	1,564	1,328
	May	R32,700	4,432	R2,340	2,134	1,644	1,532	R1,285
	June	33,000	4,581	2,611	1,678	1,565	1,625	1,347
	AVG.	35,500	5,132	2,595	2,221	1,778	1,701	1,521

(Year to date)

*The 19 signatory nations of the International Energy Agency (IEA) are: Austria, Belgium, Canada, Denmark, Federal Republic of Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

**Not a member of IEA.

***Principal products only.

NA=Not available.

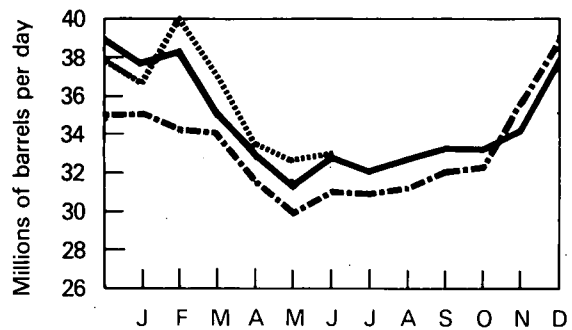
R=Revised data.

Note: Total IEA data represent domestic demand in the United States and sales of petroleum products for all other members. Sales exclude refinery fuel, refinery losses, and ocean bunkers. Experience has shown that this total IEA quantity is between 93 and 95 percent of total IEA consumption.

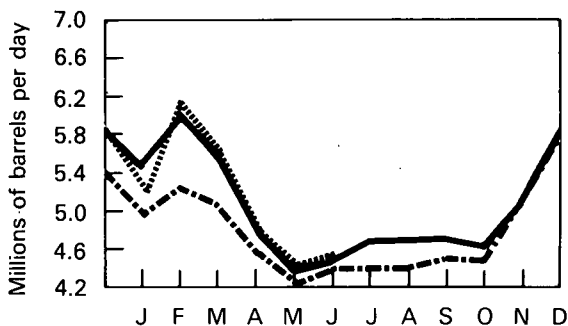
Source: Central Intelligence Agency, National Foreign Assessment Center, *International Energy Statistical Review*, 4 October 1978.

Petroleum Consumption

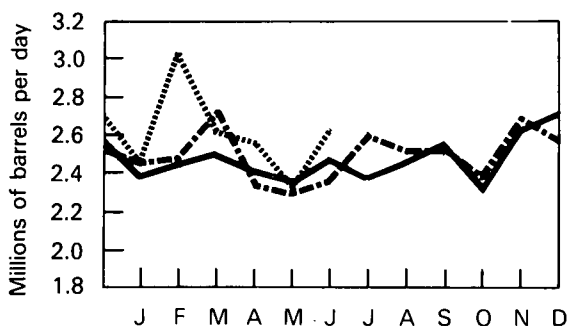
Total IEA



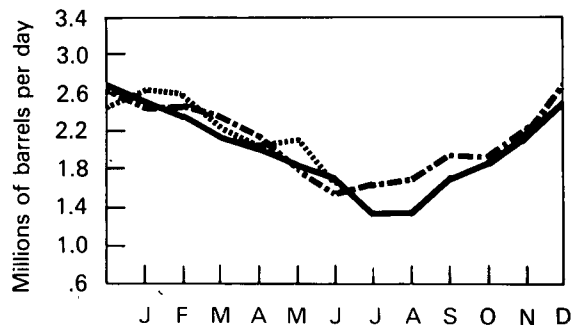
Japan*



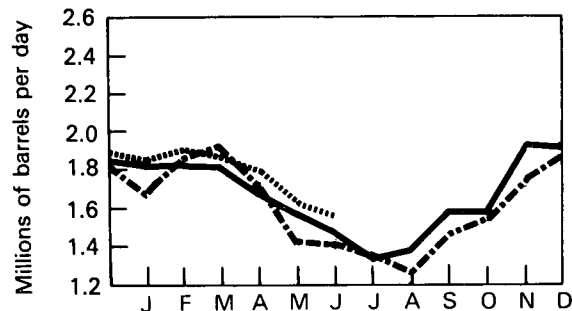
West Germany



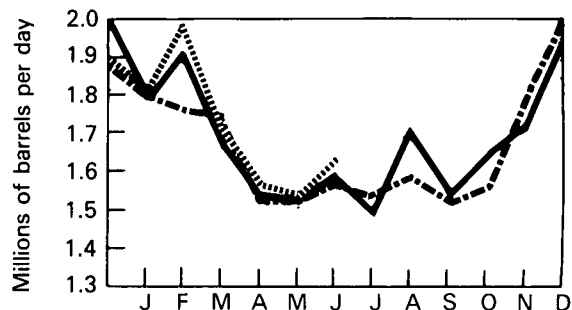
France**



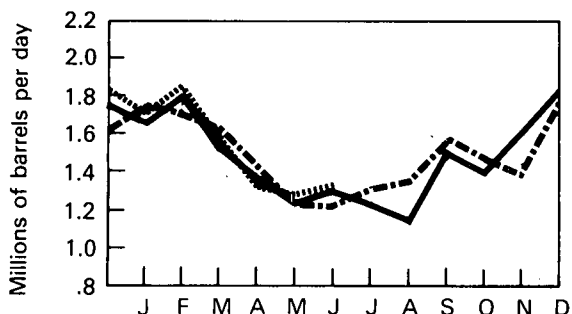
United Kingdom



Canada



Italy***



*Excludes liquefied petroleum gases and condensates.

**Not a member of IEA.

***Principal products only.

†Excludes the United States.

--- 1976
— 1977
..... 1978

Crude Oil Production

Crude Oil Production for Major Petroleum Exporting Countries—August 1978

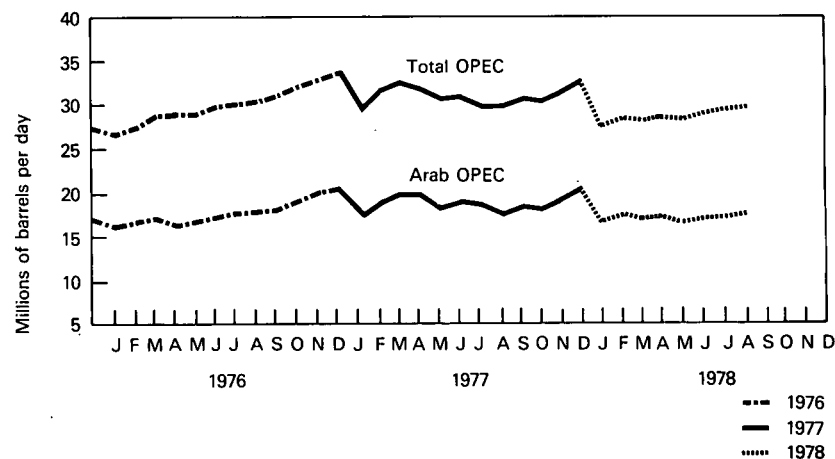
Country	Production							Maximum Sustainable Production Capacity	Production Shut in
	1972 Year	1973 Year	1974 Year	1975 Year	1976 Year	1977 Year	1978 August** August	1978 August	1978 August
	Thousands of barrels per day								Percent
Algeria	1,040	1,070	960	960	990	1,040	1,000	1,080	7.4
Iraq	1,465	2,020	1,970	2,260	2,415	2,330	2,650	3,000	11.7
Kuwait*	3,283	3,020	2,545	2,085	2,145	1,970	2,350	3,300	28.8
Libya	2,239	2,175	1,520	1,480	1,935	2,080	2,030	2,300	11.7
Qatar	482	570	520	440	495	430	540	600	10.0
Saudi Arabia*	6,016	7,595	8,480	7,075	8,575	9,200	7,150	10,400	31.3
United Arab Emirates	1,202	1,535	1,680	1,665	1,935	2,010	1,830	2,375	22.9
Subtotal: Arab OPEC	15,727	17,985	17,675	15,965	18,490	19,060	17,550	23,055	23.9
Ecuador	78	210	175	160	185	180	180	225	20.0
Gabon	125	150	200	225	225	230	220	225	2.2
Indonesia	1,080	1,340	1,375	1,305	1,505	1,690	1,620	1,700	4.7
Iran	5,023	5,860	6,020	5,350	5,885	5,660	5,800	6,500	10.8
Nigeria	1,815	2,055	2,255	1,785	2,070	2,100	2,060	2,300	10.4
Venezuela	3,219	3,365	2,975	2,345	2,295	2,240	2,190	2,600	15.8
Subtotal: Non-Arab OPEC	11,340	12,980	13,000	11,170	12,165	12,240	12,070	13,550	10.9
TOTAL OPEC	27,067	30,965	30,675	27,135	30,655	31,160	29,620	36,605	19.1
Canada	1,540	1,800	1,695	1,460	1,300	1,320	1,310	1,800	27.2
Mexico	440	465	580	720	850	980	1,240	1,500	17.3
TOTAL OPEC, Canada, Mexico	29,047	33,230	32,950	29,315	32,805	33,460	32,170	39,905	19.4
TOTAL WORLD	50,550	55,755	55,875	52,990	57,340	59,520	60,250		

*Includes about one-half of the former Kuwait-Saudi Arabia Neutral Zone. Production in August 1978 amounted to approximately 600,000 barrels per day.

**Estimated.

Sources: Central Intelligence Agency, National Foreign Assessment Center, *International Energy Statistical Review*, 4 October 1978, National Energy Board of Canada, and U.S. Department of Energy.

OPEC Countries Crude Oil Production



Definitions

Base Production Control Level

1. Prior to February 1, 1976: the total number of barrels of domestic crude oil produced and sold from a particular property in the same month of 1972. If domestic crude oil was not produced and sold from that property in every month of 1972, the total number of barrels of domestic crude oil produced and sold from that property in 1972, divided by 12.

2. Effective February 1, 1976: the total number of barrels of old crude oil produced and sold from the property during calendar year 1975, divided by 365, and multiplied by the number of days in the particular month during 1975. A producer may elect to use the total number of barrels of crude oil produced and sold from the property during calendar year 1972, divided by 366, and multiplied by the number of days in the particular month during 1972.

Ceiling Price

The maximum permissible selling price, prior to February 1, 1976, for a particular grade of domestic crude oil in a particular field is the May 15, 1973, posted price plus \$1.35 per barrel.

Controlled Crude Oil

Crude oil that was domestically produced prior to February 1, 1976, subject to the ceiling price for crude oil. For a particular property which is not a stripper well lease, the volume of controlled oil equals the base production control level minus an amount of released oil equal to the new oil production from that property.

Crude Oil Domestic Production

Domestic crude oil production is measured at the wellhead and includes lease condensate, which is a natural gas liquid recovered from lease separators or field facilities.

Crude Oil Entitlement Value

The average value a refiner receives from the entitlement program for each incremental barrel of imported crude oil. It is calculated by multiplying the entitlement price by the National Old Oil Supply Ratio for November 1974 through January 1976 and by the National Domestic Crude Oil Supply Ratio for February 1976 forward.

Crude Oil Imports

The volume of crude oil imported into the 50 States and the District of Columbia, including imports from U.S. territories, but excluding imports of crude oil into the Hawaiian Foreign Trade Zone.

Crude Oil Input to Refineries

Total crude oil input to crude oil distillation units and other units for processing.

Crude Oil Stocks

Stocks of crude oil and lease condensate held at refineries, pipeline terminals, and on leases.

Cumulative Deficiency

A measure of the cumulative deficit of production below the base production control level after the first month in which new oil was produced and sold from a specific property.

Dealer Tankwagon (DTW) Price

The price at which a dealer purchases gasoline from a distributor or a jobber.

Distillate Fuel Oil

The lighter fuel oils distilled off during the refining process. Included are products known as ASTM grades Nos. 1 and 2 heating oils, diesel fuels, and No. 4 fuel oil. The major uses of distillate fuel oils include heating, fuel for on- and off-highway diesel engines, and railroad diesel fuel. Minor quantities of distillate fuel oils produced and/or held as stocks at natural gas processing plants are not included in this series.

Domestic Demand for Specific Refined Petroleum Products

A calculated value, computed as domestic production plus net imports (imports less exports), less the net increase in primary stocks. It, therefore, represents the total disappearance of refined products from primary supplies. (See definition for Domestic Demand for Total Refined Petroleum Products.)

Domestic Demand for Total Refined Petroleum Products

Total domestic demand for petroleum products is calculated as inputs to refineries, plus estimated refinery gain, plus hydrogen input, plus natural gas plant liquids production, plus direct use of crude as fuel, plus product imports, less product exports, plus or minus stock change of products. (See definition for Domestic Demand for Specific Refined Petroleum Products.)

Electricity Production

Production at electric utilities only. Does not include industrial electricity generation.

Entitlement Position

The monthly entitlement position of a refiner indicates whether he bought or sold entitlements in that month. An entitlement is the right to process "deemed old oil," which is the sum of a refiner's receipts of "old" oil and a fraction of his receipts of "upper tier" crude oil. This fraction is set monthly by ERA. A refiner must purchase entitlements for the amount of his "deemed old oil" receipts in excess of the national domestic crude oil supply ratio (NDCOSR). The NDCOSR, as calculated by ERA, reflects the differences in costs to refiners of "old" oil, "upper tier" crude oil, and imported crude oil.

Entitlement Price

The price of an entitlement, fixed by ERA, is the exact differential as reported for the month between the weighted average delivered cost per barrel to refiners of both imported crude oil and stripper crude oil, and the weighted average delivered cost per barrel to refiners of "old oil," less 21 cents.

Firm Natural Gas Service

High priority gas service in which the pipeline company is under contract to deliver a specified volume of gas to the customer on a non-interruptible basis. Residential and small commercial facilities usually fall into this category.

Full Serve

Motor vehicle services are provided by an attendant, such as: pumping gas, washing windows, checking under the hood, checking tire pressure, etc.

Full Service Station

A service station selling motor fuels and oils, tires, batteries and accessories (TBA), and performing motor vehicle repairs.

Interruptible Natural Gas Service

Low priority gas service in which the pipeline company has the contractual option to temporarily terminate deliveries to customers by reason of claim of firm service customers or higher priority users. Large commercial facilities, industrial users, and electric utilities usually fall into this category.

Jet Fuel

Includes both naphtha-type and kerosene-type fuels meeting standards for use in aircraft turbine engines. Although most jet fuel is used in aircraft, some is used for other purposes, such as for generating electricity in gas turbines.

Landed Cost

The cost of imported crude oil equal to actual cost of the crude oil at point of origin plus transportation cost to the United States.

Limited Work Authorization

A Limited Work Authorization (LWA) may be granted by the Atomic Safety and Licensing Board of the Nuclear Regulatory Commission to an applicant who wants to construct a nuclear powerplant providing that the project has been cleared for all requirements of the National Environmental Protection Act and that the geologic and topographic suitability of the reactor site has been found satisfactory. The LWA allows an applicant to proceed with site excavation, install temporary construction and service facilities, construct service roads, and erect structures and components not subject to normal quality assurance inspections. It may save a utility from 6 to 8 months in total construction time. However, because the ultimate approval of a construction permit is based on all evidence

revealed during the licensing hearings, the successful award of an LWA is no guarantee that a construction permit will also be granted.

Line Miles of Seismic Exploration

The distance along the earth's surface that is covered by seismic traverses.

Lower Tier Crude Oil

Old crude oil.

Lower Tier Ceiling Price Determination

The lower tier ceiling price for a particular grade of domestic crude oil in a particular field is the sum of (1) the highest posted price at 6 a.m., local time, May 15, 1973, for transactions in that grade of crude oil in that field; or if there was no posted price in that field for that grade of domestic crude oil, the related price for that grade of domestic crude oil which is most similar in kind and quality in the nearest field for which prices were posted; and (2) the amount mandated in the Monthly Price Adjustment Schedules published by ERA in the *Federal Energy Guidelines* (Part 212.77-13847 Appendix).

Major Brand

Lundberg Survey, Inc., defines major brand as an integrated company that produces, refines, transports, and markets in Interstate Commerce under its own brand(s) in 10 or more States.

Maximum Dependable Capacity

Represents the dependable main-unit net capacity of domestic reactors and generally varies throughout the year because the unit efficiency varies with seasonal cooling water temperature variations. Usually maximum dependable capacity is the highest net dependable output of the turbine generator during the most restrictive seasonal conditions (usually summer).

Motor Gasoline Production

Total production of motor gasoline by refineries, measured at the refinery outlet. Relatively small quantities of motor gasoline are produced at natural gas processing plants, but these quantities are not included.

Motor Gasoline Stocks

Primary motor gasoline stocks held by gasoline producers. Stocks at natural gas processing plants are not included.

National Domestic Crude Oil Supply Ratio

Old oil receipts adjusted for upper-tier receipts, small refiner bias, and other minor adjustments, divided by crude runs to stills adjusted for residual fuel entitlements.

National Old Oil Supply Ratio

Old oil receipts, adjusted for small refiner bias and exemptions, divided by crude runs to stills adjusted for entitlements issued for imported refined products.

Natural Gas Liquids (NGL)

Products obtained from natural gasoline plants, cycling plants and fractionators after processing the natural gas. Included are ethane, liquefied petroleum (LP) gases (propane, butane, and propane-butane mixtures), natural gasoline, plant condensate, and minor quantities of finished products such as gasoline, special naphthas, jet fuel, kerosene, and distillate fuel oil.

New Crude Oil

1. Prior to February 1, 1976: the total number of barrels of domestic crude oil produced and sold in a specific month, less the base production control for that month and less the current cumulative deficiency.

2. Effective February 1, 1976: the total number of barrels of domestic crude oil produced and sold in a specific month, less the property's base production control level for that month and less the current cumulative deficiency since February 1, 1976.

Nonbranded Independent Marketer

A firm which is engaged in the marketing or distribution of refined petroleum products, but which (1) is not a refiner, (2) is not a firm which controls, is controlled by, is under common control with, or is affiliated with a refiner (other than by means of a supply contract), and (3) is not a branded independent marketer.

Old Crude Oil

1. Prior to February 1, 1976: the total number of barrels of crude oil produced and sold from a property in a specific month, less the total number of barrels of new crude oil for that property in that month and less the total number of barrels of released crude oil for that property in that month.

2. Effective February 1, 1976: the total number of barrels of crude oil produced and sold from a property in a specific month, less the total number of barrels of new crude oil for that property in that month.

Primary Stocks of Refined Petroleum Products

Stocks held at refineries, bulk terminals, and pipelines. They do not include stocks held in secondary storage facilities, such as those held by jobbers, dealers, independent marketers, and consumers.

Property

Prior to August 26, 1976, a property was defined as the right to produce domestic crude oil, which arises from a lease or from a fee interest. This definition was interpreted to apply only to a surface lease. In August 1976 the definition of a property was changed so that a producer may treat as a separate property each separate and distinct producing reservoir subject to the same right to produce crude oil, provided that such reservoir is recognized by the appropriate governmental regulatory authority as a producing formation that is separate and distinct from, and not in communication with, any other producing formation. Although this new definition was not

implemented until August 26, 1976, it was made effective retroactively to February 1, 1976. (F.R. 36171, August 26, 1976)

Refined Petroleum Products Imports

Imports (into the 50 States and the District of Columbia) of motor gasoline, naphtha-type jet fuel, kerosene type jet fuel, kerosene, distillate fuel oil, residual fuel oil, liquefied petroleum gases, petrochemical feedstocks, special naphtha, lubricants, waxes, asphalt, plant condensate, and unfinished oils. Included are imports of refined products for bonded and military use, and imports from U.S. territories and the Hawaiian Foreign Trade Zone.

Refiner Acquisition Cost

The cost to the refiner, including transportation and fees, of crude oil. The composite cost is the average of domestic and imported crude costs and represents the amount of crude cost which refiners may pass on to their customers.

Released Crude Oil

An amount of crude oil produced from a property in a particular month prior to February 1, 1976, which is equal to the total number of barrels of new crude oil produced and sold from that property in that month. The amount of released crude oil for a property in a particular month shall not exceed the base production control level for that property in that month.

Residual Fuel Oil

The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as ASTM grades Nos. 5 and 6 oil, heavy diesel oil, Navy Special Oil, Bunker C oil, and acid sludge and pitch used as refinery fuels. Residual fuel oil is used for the production of electric power, for heating, and for various industrial purposes.

Rotary Rig

Machine used for drilling wells that employs a rotating tube attached to a bit for boring holes through rock.

Self Serve

Motor vehicle services are not provided by attendants.

Separative Work Unit (SWU)

The measure of work required to produce enriched uranium from natural uranium. Enrichment plants separate natural uranium feed material into two groups, an enriched product group with a higher percentage of U-235 than the feed material and a depleted tails group with a lower percentage of U-235 than the feed material. To produce 1 kilogram of enriched uranium containing 2.8 percent U-235, and a depleted tails assay containing 0.3 percent U-235, it requires 6 kilograms of natural uranium feed and 3 kilograms of separative work units (3 SWU).

Startup Test Phase of Nuclear Powerplant

A nuclear powerplant that has been licensed by the Nuclear Regulatory Commission to operate, but that is in the initial testing phase during which production of electricity may not be continuous. In general, when the electric utility is satisfied with the plant's performance, it formally accepts the plant from the manufacturer, and places it in "commercial operation" status. A request is then submitted to the appropriate utility rate commission to include the powerplant in the rate base calculation.

Stripper Well Property

A property whose average daily production of crude oil per well (excluding condensate recovered in nonassociated production) did not exceed 10 barrels per day during any preceding consecutive 12-month period beginning after December 31, 1972.

Synthetic Natural Gas (SNG)

A product resulting from the manufacture, conversion, or reforming of petroleum hydrocarbons which may be easily substituted for or interchanged with pipeline quality natural gas.

Uncontrolled Crude Oil

That portion of domestic crude oil production including new, released, and stripper oil which, before February 1, 1976, could be sold at a price exceeding the ceiling price.

Unrecouped Costs

Costs which have not been recovered in the current month's product prices but which have been "banked" for later use.

Upper Tier Crude Oil

Effective February 1, 1976, upper tier crude oil included new crude oil and crude oil produced from a stripper well lease. Effective September 1, 1976, upper tier crude oil includes new crude oil only.

Upper Tier Ceiling Price Determination

The upper tier ceiling price for a particular grade of domestic crude oil in a particular field is (1) the highest posted price on September 30, 1975, for transactions in that grade of crude oil in that field in September 1975, or if there was no posted price in that field for that grade of domestic crude oil, the related price for that grade of domestic crude oil which is most similar in kind and quality in the nearest field for which prices were posted; less (2) the amount mandated in the Monthly Price Adjustment Schedules published by ERA in the *Federal Energy Guidelines* (Part 212.77 .13847 Appendix).

Well

A hole drilled for the purpose of finding or producing crude oil or natural gas or providing services related to the production of crude oil or natural gas. Wells are classified as oil wells, gas wells, dry holes, stratigraphic tests, or service wells. This is a standard definition of the American Petroleum Institute.

Explanatory Notes

1. Domestic production of energy includes production of crude oil and lease condensate, natural gas (wet), coal (anthracite, bituminous, and lignite), electricity output from hydroelectric and nuclear powerplants and industrial hydroelectric power production as well as geothermal power. The volumetric data were converted to approximate heat contents (Btu-values) of the various energy sources using conversion factors listed in the Units of Measure.

2. U.S. imports of fossil fuels include imports of crude oil, refined petroleum products, natural gas (dry), coal (bituminous and lignite) and coke. Does not include imports of petroleum for the Strategic Petroleum Reserve.

3. Domestic consumption includes domestic demand for refined petroleum products, consumption of coal (anthracite, bituminous, and lignite, and net coke imports) and natural gas (dry), electricity output from hydroelectric and nuclear powerplants, industrial hydroelectric power production, net imports of electric power, and production of geothermal power. Approximate heat contents (Btu-values) were derived using conversion factors listed in the Units of Measure. Electricity net imports were converted using the Btu-content of hydroelectric power. 1978 electricity net imports were estimated on the basis of the net import level for 1977.

4. U.S. exports of fossil fuels include exports of coal (bituminous, lignite, and anthracite), coke, crude oil, refined petroleum products, and natural gas (dry).

5. The Residential and Commercial Sector consists of housing units, non-manufacturing business establishments (e.g., wholesale and retail businesses), health and educational institutions, and government office buildings. The Industrial Sector is made up of construction, manufacturing, agriculture, and mining establishments. The Transportation Sector consists of both private and public passenger and freight transportation, as well as government transportation, including military operations. The Electric Utilities Sector is made up of privately- and publicly-owned establishments which generate electricity primarily for resale.

6. Degree-days relate demand for energy to outdoor air temperature. Cooling degree-days are defined as deviations of the mean daily temperature at a sampling station above a base temperature equal to 65°F by convention. Heating degree-days are deviations of the mean daily temperature below 65°F. For example, if a weather station recorded a mean daily temperature of 78°F, cooling degree-days for that station would be 13 (and heating degree-days, 0). A weather station recording a mean daily temperature of 40°F would report 25 heating degree-days (and 0 cooling degree-days).

There are two degree-day data bases maintained by the National Oceanic and Atmospheric Administration. Weekly degree-day information is based on mean daily temperatures recorded at about 200 major weather stations around the country. Monthly data are based on readings at more than 8,000 weather stations. The

temperature information recorded at these weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Petroleum Administration for Defense (PAD) Districts and into the national average, also using a population weighting method.

Weekly weather reports are available much sooner than the monthly reports, and therefore the degree-day information published in the *Monthly Energy Review* is normally derived from the weekly source.

7. Domestic demand figures for natural gas liquids (NGL) as reported by BOM and reproduced in this publication do not include amounts utilized by refineries for blending purposes in the production of finished products, principally gasoline. Use of NGL at refineries is reported in a separate column. The production series cited in this publication shows both NGL produced at processing plants and liquefied gases produced at refineries (LRG). NGL produced at refineries is extracted from crude oil and hence, to avoid double counting, should not be included in calculations of total U.S. production of petroleum liquids. The stock series shown in this volume includes natural gas liquids held as stocks at both natural gas processing plants and at refineries and LRG held at refineries.

8. Domestic consumption of natural gas includes the quantities sold to consumers plus the gas used for plant and pipeline fuel, after the natural gas liquids have been extracted. All monthly consumption data are estimated. Marketed production of natural gas includes gross withdrawals from the ground less the quantities used for repressuring and the amount vented and flared, before the natural gas liquids have been extracted.

9. The Federal Energy Administration and Federal Power Commission began the coordinated collection and compilation of monthly underground storage information from all underground storage operators in the United States in October 1975. Initial storage information reported was for the month of September 1975. Comparable monthly information for total U.S. storage operations is not available for prior periods.

The total gas in storage is the total volume of gas (base gas plus working gas) in storage reservoirs as of the end of the month. Base gas is the volume of gas, including all native gas in place at the time of conversion to storage, needed as a permanent inventory to maintain adequate reservoir pressures and deliverability rates throughout the withdrawal season. Base gas includes the volumes which will not be recoverable upon termination of storage operations. Working gas is the volume of gas above the designated base gas level available for withdrawal.

10. Bituminous coal and lignite consumption is calculated by EIA from information provided by the Federal Energy Regulatory Commission, Department of Commerce, and reports from selected manufacturing industries and retailers. Domestic consumption data in this series, therefore, approximate actual consumption. This is in contrast to domestic demand reported for petroleum products, which is a calculated value representing total disappearance from primary supplies.

Bituminous coal and lignite production is calculated from the number of railroad cars loaded at mines, based on the assumption that approximately 60 percent of the coal produced is transported by rail. Production data are estimated by EIA from Association of American Railroads reports of carloadings.

11. Quantities of uranium are measured by various units at different stages in the fuel cycle. At the mill, quantities are usually expressed as pounds or short tons of U_3O_8 . After the conversion stage, the units of measure are either metric tons (MT) of UF_6 or metric tons of uranium (MTU). The later designation expresses only the elemental uranium content of UF_6 .

Following the enrichment stage, the same units are used, but the U-235 content has been enhanced at the expense of loss of material. At the fabrication stage, UF_6 is changed to UO_2 , and the standard unit of measure is the MTU. We have chosen to present all uranium quantities as MTU; conversion factors to other units are given in the Units of Measure section.

12. The units used to describe power generation at nuclear plants are based on the watt, which is a unit of power. (Power is energy produced per unit of time.) As with fossil-fueled plants, nuclear plants have three design power ratings. The normal rating (expressed in thermal megawatts) is the rate of heat production by the reactor core. The gross electrical rating (expressed in electrical megawatts, MWe) is the generator capacity at the stated thermal rating of the plant. The net electrical rating (also expressed in MWe) is the power available as input to the electrical grid after subtracting the power needed to operate the plant. (A typical nuclear plant needs 5 percent of its generated electricity for its own operation.)

The electrical energy produced by a plant is expressed either as megawatt hours (MWh) or kilowatt hours (KWh). Tables in the nuclear section show generated electricity as average electrical power. This enables a more direct comparison to design capacity and to previous months' performances. To obtain the quantity of electricity generated during a given time period (in kilowatt hours), multiply the average power level (in kilowatts) by the number of hours during that period.

The energy extracted from uranium fuel is expressed as thermal megawatt days per metric ton of uranium (MWD/MTU). The production of plutonium in the fuel rods is expressed as kilograms of plutonium per metric ton of discharged uranium (kg/MTU).

13. The refiner acquisition cost of domestic crude oil is the price paid by refiners for domestic crude oil, unfinished oils, and natural gas liquids and includes transportation costs from the wellhead to the refinery. The refiner acquisition cost of imported crude oil is the average landed cost of imported crude oil to the refiner and represents the amount which may be passed on to the consumer. It incorporates transportation costs and fees (including the supplemental import fees) and any other costs incurred in purchasing and shipping crude oil to the United States.

14. Prior to February 1976, the domestic crude oil wellhead price represented an estimate of the average of posted prices; after February 1976, the wellhead price represents an average of first sale prices. For the 2-year

period January 1974 through January 1976, the old oil price at the wellhead was originally estimated to be \$5.25 per barrel based on representative postings. This estimate was revised in July 1976 after a survey of crude oil purchasers was implemented and more complete data became available. Estimates of the average old oil price given in the table for months prior to February 1976 are based on prices for old oil reported on new oil leases, and were not derived from a statistically valid sample of old oil leases.

15. FOB literally means "Free on Board." It denotes a transaction whereby the seller makes the product available with an agreement on a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance.

16. The estimated landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to March 1975, imported crude costs to U.S. company-owned refineries in the Caribbean were not included in the landed cost, and costs of crude oil from countries which export only small amounts to the United States were also excluded. Beginning in March 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.

17. The major brand category includes those stations using the primary brand of a major refiner. Primary brands are the brand names or logos that are associated most commonly with the 15 integrated major refiners as defined in the Emergency Petroleum Allocation Act of 1973. These refiners are: Amoco, Atlantic Richfield, Chevron, Cities Service, Contrinental, Exxon, Getty, Gulf, Marathon, Mobil, Phillips, Shell, Sun, Texaco, and Union Oil of California. The nonmajor brand category includes all the other stations in the survey. Stations using secondary brands of major refiners are included in the nonmajor brand category, as these stations typically price their gasoline to compete with independent refiner and market-brand stations. Stations owned and operated directly by refiners are not included in this survey.

18. The U.S. Department of Energy Regions are defined as follows:

- Region 1—Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island;
- Region 2—New York, New Jersey, Puerto Rico, Virgin Islands;
- Region 3—Pennsylvania, Maryland, West Virginia, Virginia, District of Columbia, Delaware;
- Region 4—Kentucky, Tennessee, North Carolina, South Carolina, Mississippi, Alabama, Georgia, Florida, Canal Zone;
- Region 5—Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio;
- Region 6—Texas, New Mexico, Oklahoma, Arkansas, Louisiana;
- Region 7—Kansas, Missouri, Iowa, Nebraska;
- Region 8—Montana, North Dakota, South Dakota, Wyoming, Utah, Colorado;
- Region 9—California, Nevada, Arizona, Hawaii, Trust Territory of the Pacific Islands, American Samoa, Guam;
- Region 10—Washington, Oregon, Idaho, Alaska.

19. The same survey and method used to derive data for March 1976 forward differ from those used for prior months. Data for January 1974 through February 1976 are derived from a survey of distributors, and prices and margins are computed as unweighted averages. The average distributor purchase price and average dealer margin for March 1976 forward are for distributors only, whereas the average selling price includes both refiners and distributors. Data for March 1976 forward are computed as sales weighted averages.

20. The weighted average utility fuel cost for the total United States includes distillate fuel oil delivered to utilities whereas the regional breakdown for residual fuel oil prices represents only No. 6 fuel oil prices.

Units of Measure

Weight

1 metric ton	<i>contains</i>	1,000 kilograms or 2,204.62 pounds
1 long ton	<i>contains</i>	2,240 pounds
1 short ton	<i>contains</i>	2,000 pounds

Conversion Factors for Crude Oil

1 barrel	<i>contains</i>	42 gallons
1 barrel	<i>weighs</i>	0.136 metric tons (0.150 short tons)
1 metric ton	<i>contains</i>	7.33 barrels
1 short ton	<i>contains</i>	6.65 barrels

Conversion Factors for Uranium

1 short ton (U ₃ O ₈)	<i>contains</i>	0.769 metric tons of uranium
1 short ton (UF ₆)	<i>contains</i>	0.613 metric tons of uranium
1 metric ton (UF ₆)	<i>contains</i>	0.676 metric tons of uranium

Approximate Heat Content of Various Fuels

		1972	1973	1974	1975	1976	1977-78
Bituminous coal and lignite							
Production	Btu/short ton	24,050,000	24,010,000	23,730,000	23,200,000	23,150,000	22,900,000
Exports	Btu/short ton	27,000,000	27,000,000	27,000,000	27,000,000	27,000,000	27,000,000
Imports	Btu/short ton	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
Consumption	Btu/short ton	23,750,000	23,650,000	23,070,000	22,800,000	22,750,000	22,565,000
Coke	Btu/short ton	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000
Anthracite	Btu/short ton	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000
Crude petroleum, production	Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000
Petroleum products							
Consumption, average	Btu/barrel	5,503,200	5,517,000	5,506,100	5,495,900	5,495,900	5,495,900
Imports	Btu/barrel	6,028,349	6,001,364	5,975,463	5,938,220	5,975,452	5,903,170
Exports	Btu/barrel	5,700,739	5,724,014	5,809,824	5,713,363	5,696,315	5,779,510
Natural gas liquids	Btu/barrel	4,049,256	4,032,483	4,024,000	3,997,000	4,003,600	3,935,200
Natural gas, wet	Btu/cubic foot	1,100	1,093	1,097	1,095	1,094	1,093
Natural gas, dry	Btu/cubic foot	1,027	1,021	1,024	1,021	1,020	1,020
Hydropower	Btu/kWh	10,379	10,389	10,442	10,406	10,406	10,406
Nuclear power	Btu/kWh	10,660	10,660	10,660	10,660	10,660	10,660
Geothermal power	Btu/kWh	21,690	21,690	21,690	21,690	21,690	21,690

Petroleum Products:	Btu/barrel
Natural gasoline	4,620,000
Liquefied gases	4,011,000
Gasoline (incl. aviation)	5,248,000
Special naphtha	5,248,000
Jet fuel, naphtha-type	5,355,000
Jet fuel, kerosene-type	5,670,000
Kerosene	5,670,000
Distillate fuel oil	5,825,000
Residual fuel oil	6,287,000
Still gas	6,000,000
Lubricants	6,065,000
Waxes	5,537,000
Petroleum coke	6,024,000
Asphalt and road oil	6,636,000

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